



संकल्प

वार्षिकांक २०२५-२०२६

Artificial Intelligence for Betterment of Humanity

अतुल विद्या मंदिर, वर्धा संचालित

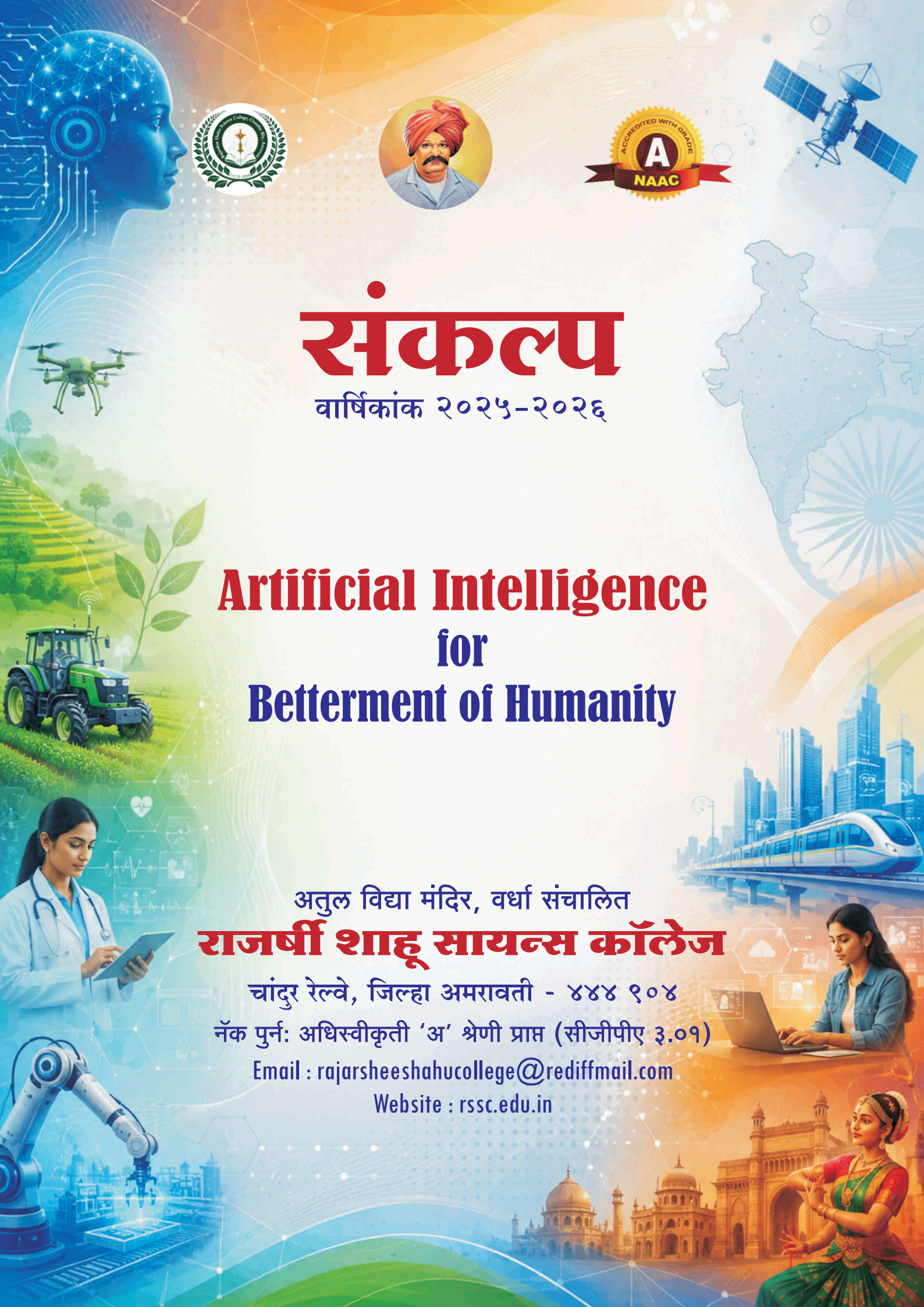
राजर्षी शाहू सायन्स कॉलेज

चांदुर रेल्वे, जिल्हा अमरावती - ४४४ ९०४

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२०२५-२०२६



प्रकाशक

प्राचार्य,

राजर्षी शाहू सायन्स कॉलेज, चांदूर रेल्वे

मुख्य संपादक

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प्राध्यापक - रसायनशास्त्र

सह संपादक

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कु. आयुषी गिरी (बी.एस्सी. भाग १)

मुद्रक

सान्वी बुक्स अँड झेरोक्स, रुख्मिणी नगर, अमरावती

या अंकात व्यक्त झालेल्या विचारांशी संपादक मंडळ सहमत असेलच असे नाही.
ते मत त्या त्या लेखकाचे समजावे.

आमचे प्रेरणा-थान



छत्रपती राजर्षी शाहू महाराज

Homage to the Memories of



*Founder President
Late Prof. Annasaheb
Alias Walmikrao Jagtap*



Late Atul W. Jagtap

अतुल विद्या मंदिर (वर्धा)

रजि.नं. महा. ८७/९१ व एफ - १३३५ वर्धा

कार्यकारी समिती

१.	प्रा. सौ. उत्तराताई वी. जगताप	अध्यक्षा
२.	डॉ. मिलिंद वा. जगताप	उपाध्यक्ष
३.	डॉ. वैष्णवी प. जगताप	उपाध्यक्षा
४.	डॉ. वीरेंद्रभाऊ वा. जगताप	सचिव
५.	श्री. परिक्षीत वी. जगताप	कोषाध्यक्ष
६.	डॉ. वर्षा मि. जगताप	सदस्य
७.	श्री. सुधिर व. जगताप	सदस्य
८.	श्री. गोपाल म. चौधरी	सदस्य
९.	श्री. मिहीर मि. जगताप	सदस्य



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शुभसंदेश.....



आजच्या आधुनिक युगात कृत्रिम बुद्धिमत्ता (Artificial Intelligence - AI) हे तंत्रज्ञान मानवी जीवनाचा अविभाज्य भाग बनले आहे. AI म्हणजे संगणक किंवा यंत्रांना माणसाप्रमाणे विचार करण्याची, शिकण्याची, निर्णय घेण्याची आणि समस्या सोडवण्याची क्षमता देणारे तंत्रज्ञान. यामुळे जीवन अधिक सोपे, जलद आणि कार्यक्षम झाले आहे. AI चे अनेक फायदे असले तरी काही आव्हानेही आहेत. काही नोकऱ्यांवर परिणाम होण्याची शक्यता, गोपनीयतेचा प्रश्न, सायबर सुरक्षा आणि AI चा गैरवापर ही महत्त्वाची आव्हाने आहेत. त्यामुळे AI चा वापर जबाबदारीने आणि नैतिकतेच्या चौकटीत करणे आवश्यक आहे. कृत्रिम बुद्धिमत्ता हे मानवाच्या प्रगतीसाठी अत्यंत उपयुक्त आणि प्रभावी तंत्रज्ञान आहे. योग्य वापर केल्यास AI शिक्षण, आरोग्य, शेती, उद्योग आणि दैनंदिन जीवनात मोठे सकारात्मक बदल घडवू शकते. त्यामुळे AI चा विकास मानवाच्या कल्याणासाठी आणि समाजाच्या प्रगतीसाठी उपयोगात आणणे ही काळाची गरज आहे.

महाविद्यालय हे असे ज्ञानदानाचे दालन आहे जिथे विविध प्रकारचे संस्कार विद्यार्थ्यांमधी रुजविण्यात येतात. विद्यार्थ्यांचा शैक्षणिक विकास होत असताना सोबतच सर्वांगीण विकास होणे अत्यंत गरजेचे आहे. विविध नाविन्याची भर घालत असताना सामाजिक दृष्टिकोनात सकारात्मक बदल घडवून आणणे अतिशय महत्त्वाचे आहे. २००८ साली स्थापन झालेलं इवलंसं रोपटं म्हणजे राजर्षी शाहू सायन्स कॉलेज, चांदुर रेल्वे परंतु सर्वांच्या अथक प्रयत्नांतून आणि परिश्रमातून महाविद्यालय वटवृक्षाप्रमाणे फैलावत चालले आहे. ज्ञानाची, गुणाची आणि कर्तृत्वाची झेप घेत महाविद्यालय दिवसेंदिवस प्रत्येक क्षेत्रात उंची गाठत आहे याचा मला सार्थ अभिमान आहे आणि याचा दाखला म्हणजे आज महाविद्यालयाला राष्ट्रीय मूल्यांकन आणि मान्यता परिषद (NAAC) यांच्या मूल्यांकनातून 'अ' श्रेणीचा उत्तम दर्जा प्राप्त झाला आहे.

पुस्तकी ज्ञानाबरोबरच विविध कौशल्यपूर्वक आणि विद्यार्थ्यांनुरूप उपक्रम महाविद्यालयात आयोजित केल्या जातात आणि यातीलच एक उपक्रम म्हणजे महाविद्यालयाचा वार्षिकांक या वार्षिकांत सर्वच घटक आपला सहभाग नोंदवितात त्यामुळे याला वेगळीच उंची प्राप्त होते. विद्यार्थ्यांमधी असणाऱ्या विविध कला या वार्षिकांकात अंतर्भूत केल्या जातात, प्रत्येक विभागाच्या कामाचा अहवाल यात नमूद असतो, विविध क्षेत्रातील प्राविण्य प्राप्त विद्यार्थी आणि शिक्षक, समाजाभिमुख उपक्रम, विद्यार्थ्यांच्या उज्वल भवितव्याकरिता राबणीत येणारे उपक्रम आणि बरेच काही यांचा एकंदरीत संपूर्ण लेखाजोखा म्हणजे हे दरवर्षीचे वार्षिकांक.

या अंकाच्या माध्यमातून विद्यार्थ्यांची विचारशैली मार्गी तर लागलेच सोबतच चिकित्सक आणि संशोधक वृत्ती वाढीस लागते. म्हणून या वार्षिकांकाकरिता विद्यार्थी वर्ग, प्राध्यापकवृंद आणि संपादकीय समिती यांना मनःपूर्वक शुभेच्छा देते.

धन्यवाद !

UtagtaP

(प्रा. सौ. उत्तराताई वी. जगताप)
अध्यक्षा, अतुल विद्या मंदिर, वर्धा

प्राचार्यांचे मनोगत.....



अतुल विद्या मंदिर संस्थेचे संस्थापक अध्यक्ष स्वर्गीय अण्णासाहेब उर्फ वाल्मिकराव जगताप यांच्या अथक प्रयत्नांतून साकारलेले हे ज्ञान दानाचे मंदिर.चांदूररेल्वे तालुक्यातील सभोवतालला वसलेले खेडेगावी आणि येथील सामान्य कुटुंबात राहणारा आपला तरुण वर्ग यांना शिक्षणाच्या संधी तालुक्याच्या ठिकाणीच उपलब्ध व्हाव्यात म्हणून राजर्षी शाहू सायन्स कॉलेज ची स्थापना २००८ साली सर्वांच्या प्रयत्नातून करण्यात आली.इवल्याश्या रोपट्याचं वटवृक्षात रूपांतर होत असताना मनाला आल्हाददायक आनंद आणि अभिमान सुद्धा होत आहे.आज महाविद्यालय प्रगतीकडे वाटचाल करीत असताना या प्रगतशील वाटचालीकडे महाविद्यालयातील प्रत्येक घटकाचा तेवढाच अमूल्य वाटा आणि प्रामाणिक प्रयत्न असल्याचे नमूद करीत असताना अत्यंत आनंद होत आहे.आज महाविद्यालयाला राष्ट्रीय मूल्यांकन आणि मान्यता परिषद (NAAC) यांच्या मूल्यांकनातून 'अ' श्रेणीचा उत्तम दर्जा प्राप्त झाला असून हा दर्जा महाविद्यालयाची असणारी गुणवत्ता आणि उत्तम प्रकारची कार्यप्रणाली निदर्शनास आणून देते.

कोणत्याही शिक्षणक्षेत्रातील प्रथम केंद्रबिंदू हा विद्यार्थी असून त्याचा सर्वांगीण विकास आणि त्याच्याअंगी असणाऱ्या सुप्त गुणांना वाव देणारे महाविद्यालय हे सर्वात मोठे व्यासपीठ आहे. विद्यार्थ्यांच्या सृजनशीलतेला चालना देणारे या सत्रातील मासिक आपल्यासमक्ष घेऊन येत आहोत.

विद्यार्थ्यांच्या अंतरंगांतील सुप्त गुण यांना वाव देत या मासिकात विविध भाषेतील विद्यार्थ्यांचे साहित्यिक लेखन,कविता,चारोळी,शायरी आणि चित्ररेखाटन कला या सर्वच उत्कृष्ट रित्या पारेषित करण्यात आले आहेत.सोबतच महाविद्यालयीन स्तरावर विद्यार्थ्यांनुरूप विविध कार्यक्रम आयोजित करण्यात येत असून त्या सर्व कार्याचा आराखडा या मासिकात अंतर्भूत करण्यात आला आहे.

महाविद्यालय वर्षभर सांस्कृतिक, कलात्मक,स्पर्धात्मक आणि खेळ या संबंधी विविध उपक्रम राबवित असतो आणि सोबतच विद्यापीठस्तरीय,राज्यस्तरीय स्पर्धेत सुद्धा महाविद्यालयातील विद्यार्थी सतत सहभाग नोंदवित असतात त्यांच्या गुणगौरव सुद्धा या मासिकात करण्यात आला आहे. महाविद्यालयात घेण्यात येणारे समाजप्रबोधनात्मक उपक्रम राष्ट्रीय सेवा योजना, विज्ञानाशी निगडीत राष्ट्रीय विज्ञान दिवस आणि विद्यार्थ्यांच्या करियर साठी दिशादर्शक ठरणारा उपक्रम करिअर कट्टा,निसर्गाच्या संरक्षणासाठी SIGNature समिती अश्या विविध कार्यरत समित्या या मासिकात नमूद करण्यात आल्या आहेत. या मासिकात प्राध्यापक वृंद यांचा सुद्धा सहभाग झालेला आहे.

वर्षातून तयार होणारे हे मासिक आजच्या विद्यार्थ्यांच्या सर्वांगीण विकासासाठी एक उत्तम दिशादर्शक ठरते.या वर्षिकांक निर्मितीकरिता सहभाग घेणारे विद्यार्थी,प्राध्यापक वृंद तसेच वर्षभरातील प्रत्येक घटकेचा आढावा घेत या मासिकाला वेगळ्या स्वरूपात मांडणी करण्याकरिता अथक परिश्रम घेणाऱ्या संपादकीय समितीचे मनःपूर्वक अभिनंदन.

धन्यवाद!

डॉ. पराग वडनेरकर
प्राचार्य

संपादकीय.....

विज्ञान आणि तंत्रज्ञानाच्या वेगवान युगात कृत्रिम बुद्धिमत्ता (Artificial Intelligence-AI) ही केवळ एक संकल्पना राहिलेली नाही, तर ती आपल्या दैनंदिन जीवनाचा अविभाज्य भाग बनली आहे. मोबाईलवरील व्हॉइस असिस्टंट, ऑनलाइन शिक्षण, वैद्यकीय निदान, स्मार्ट वाहतूक व्यवस्था, उद्योग आणि संशोधन अशा अनेक क्षेत्रांमध्ये AI मुळे क्रांतिकारी बदल घडत आहेत. आजचा विद्यार्थी, शिक्षक आणि संशोधक यांच्यासाठी AI हे केवळ तंत्रज्ञान नसून नव्या संधीचे दालन आहे. महाविद्यालयीन जीवन हे ज्ञान, सर्जनशीलता आणि नवकल्पनांचे केंद्र असते. AI मुळे विद्यार्थ्यांना जागतिक दर्जाची माहिती, वैयक्तिक अध्ययन, संशोधनासाठी आवश्यक साधने आणि कौशल्यविकासाच्या नवीन संधी उपलब्ध होत आहेत. योग्य मार्गदर्शनाखाली AI चा वापर केल्यास विद्यार्थ्यांची विचारशक्ती, समस्या सोडवण्याची क्षमता आणि संशोधनाची गुणवत्ता अधिक समृद्ध होऊ शकते. मात्र, प्रत्येक तंत्रज्ञानाप्रमाणे AI सोबत काही आव्हानेही आहेत. चुकीची माहिती, गोपनीयतेचे प्रश्न, शैक्षणिक प्रामाणिकता, रोजगारातील बदल आणि तंत्रज्ञानावर वाढते अवलंबित्व या बाबी गांभीर्याने विचारात घेणे आवश्यक आहे.

AI हे मानवी बुद्धिमत्तेचा पर्याय नसून तिचे पूरक साधन आहे. त्यामुळे विद्यार्थ्यांनी AI चा उपयोग शिकण्यासाठी, नवकल्पना विकसित करण्यासाठी आणि समाजहितासाठी करावा; केवळ शॉर्टकट म्हणून नव्हे. या अंकातून आम्ही AI विषयाकडे केवळ तांत्रिक दृष्टीने नव्हे, तर सामाजिक, नैतिक आणि शैक्षणिक दृष्टिकोनातूनही पाहण्याचा प्रयत्न केला आहे. बदलत्या काळाशी जुळवून घेताना मानवी मूल्ये, सर्जनशीलता आणि विवेक यांचे महत्त्व कायम ठेवणे हीच खरी प्रगती आहे. चला, कृत्रिम बुद्धिमत्तेचा स्वीकार करूया परंतु जबाबदारी, नैतिकता आणि ज्ञानाची ओढ यांसह. कारण भविष्य केवळ AI चे नाही, तर AI चा सुजाण आणि सर्जनशील वापर करणाऱ्या मानवाचे आहे.

या मासिकात विद्यार्थ्यांच्या विविध कला त्यांचे साहित्यपर लेखन, कविता, चारोळ्या आणि चित्रे अंतर्भूत करण्यात आली आहेत. सोबतच महाविद्यालयातील कार्यरत विविध शैक्षणिक विभाग आणि समित्या यांच्या कार्याचा अहवाल सुद्धा नमूद करण्यात आला आहे. महाविद्यालयात राष्ट्रीय सेवा योजना हा समाजपयोगी उपक्रम विविध नाविन्यपूर्ण उपक्रम राबवित असतो त्यांच्या कार्याचा अहवाल आणि इतर समाजपयोगी आणि नाविन्यपूर्ण उपक्रमांची छायाचित्रे प्रदर्शित करण्यात आली आहेत. शाहू महाराज यांच्या विचारांचा वारसा जपत महाविद्यालयाला लोकराजा राजर्षी शाहू महाराज यांचे नाव देण्यात आले आहे.

अशा विविध नाविन्यपूर्ण उपक्रमांनी तयार झालेला यावर्षीचा वार्षिकांक आपल्या सर्वासमक्ष घेऊन येत असताना आनंद द्विगुणित होत आहे. तयार झालेला वार्षिकांक महाविद्यालयाचा नाविन्याचा, कल्पकतेचा आणि सृजनशीलतेचा आरसा असून आपल्या सर्वांना सुद्धा मोहित करेल अशी आमच्या संपादकीय समितीतर्फे विश्वासाची ग्वाही देतो. या वार्षिकांकरिता लाभलेल्या सर्व सहकारी घटकांचे मनापासून आभार.

धन्यवाद !

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संपादक

सह-संपादक



डॉ. संपदा पाथरकर



प्रा. कुलदीप सोळंके



प्रा. प्रविण चव्हाण

अनुक्रमणिका

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COLOUR COAT HOLDERS



Ku. Pratiksha Patane
Colour Coat in Hockey



Ku. Saniya Shaikh
Colour Coat in Hockey



Ku. Bhakti Surywanshi
Colour Coat in Hockey



Ku. Taushree Aurase
Colour Coat in Kabaddi



Mr. Zahid Khan
Colour Coat in Hockey



Mr. Zeeshan Baig
Colour Coat in Hockey



Ku. Kalyani Kalawate
Colour Coat in Hockey



Mr. Zainul Abedin
Colour Coat in Hockey

MERITORIOUS STUDENTS

12th Science



Ku. Mrunal Shrikant Ghuge
(First Topper)



Aryan Surendra Bakale
(Second Topper)



Ku. Dipti Diwakar Raut
(Third Topper)

12th Arts



Ku. Gauri R. Kale
(First Topper)



Ganesh N. Patil
(Second Topper)



Shivam H. Dodake
(Third Topper)

FACULTY AWARD & ACHIEVEMENT



Dr. A. D. Bansod

Published a Text book of Chemistry B.Sc. III Sem V



Dr. M. J. Keche

Published Text Book of Ayush (GOEC) NEP-2020
for U.G. Semester II Students



Dr. G. B. Santape

Published a Text book of Animal Physiology,
Molecular Biology & Biotechnology, B.Sc. III Sem V



Dr. S. S. Padhen

Published a Practical book of Chemistry
B.Sc. III Sem V & VI



Dr. M. P. Waghmare
Ph.D. Awarded



Dr. S. P. Patharkar

Published Book of Plant Science and Career
Development (NEP-2020) B.Sc. I Sem-I



Dr. P. R. Sardar

Published Text Book of Molecular & plant biotechnology
B.Sc. III (CBCS) Sem-VI and
Best oral paper presentation award at National Conference



Dr. M. S. Palasagar

Received the 'Adhunik Savitri Award' from Maharashtra
Information Technology Support Centre and published a book
"Tarunaicha Gondhal" for today's youth.

मराठी विभाग



पर्यावरण विज्ञान आणि संवर्धनात कृत्रिम बुद्धिमत्ता



► कु. ऋतुजा रमेश कुन्हाडे
बी.एससी. भाग ३

वेळेवर उपाययोजना करता येतात आणि मानवी व आर्थिक नुकसान कमी करता येते.

२. हवामान बदल आणि प्रदूषण नियंत्रण

हवामान बदल ही आजची जागतिक समस्या आहे. हरितगृह वायूंच्या वाढीमुळे पृथ्वीचे तापमान वाढत आहे. एआयच्या मदतीने कार्बन

उत्सर्जनाचे मोजमाप, प्रदूषणाची पातळी आणि त्याचे स्रोत ओळखता येतात. शहरांमधील वायु प्रदूषण कमी करण्यासाठी वाहतूक नियोजन, औद्योगिक नियंत्रण आणि हरित क्षेत्र वाढण्याचे निर्णय एआयच्या विश्लेषणावर आधारित घेतले जात आहेत.

जलप्रदूषण आणि मृदा प्रदूषण ओळखण्यासाठीही एआय उपयुक्त ठरत आहे. पाण्याच्या गुणवत्तेचे परीक्षण करून दूषित पाण्याचे स्रोत शोधता येतात, ज्यामुळे जलस्रोतांचे संरक्षण करणे सोपे होते.

३. पर्यावरण संवर्धन आणि जैवविविधता संरक्षण -

पर्यावरण संवर्धन एआयचे योगदान अत्यंत महत्वाचे आहे. उपग्रह चित्रे, ड्रोन आणि कॅमेरा ट्रॅप्स यांच्या मदतीने जंगलतोड, बेकायदेशीर खाणकाम आणि अतिक्रमणावर लक्ष ठेवता येते. वन्यजीवांच्या हालचालींचा अभ्यास करून त्यांचे संरक्षण अधिक प्रभावीपणे करता येते. अनेक दुर्मिळ व संकटग्रस्त प्रजाती नामशेष होण्याचा मार्गावर आहेत. एआय आधारित प्रणाली प्राण्यांची संख्या मोजणे, त्यांचे अधिवास ओळखणे आणि शिकारीवर नियंत्रण ठेवणे यासाठी वापरल्या जात आहेत. यामुळे जैवविविधतेचा समतोल राखण्यास मदत होते.

४. शेती, जलसंवर्धन आणि शाश्वत विकास -

शेती आणि पर्यावरण यांचा अतूट संबंध आहे. एआयच्या मदतीने मातीची गुणवत्ता तपासणे, पिकांचे

प्रस्तावना -

आजच्या आधुनिक काळात पर्यावरण प्रदूषण, हवामान बदल, जंगलतोड आणि जैवविविधतेचा न्हास यांसारख्या समस्या गंभीर रूप धारण करत आहेत. या आव्हानांवर प्रभावी आणि शाश्वत उपाय शोधण्यासाठी 'कृत्रिम बुद्धिमत्ता' Artificial Intelligence - AI ही एक महत्वाची तंत्रज्ञानात्मक साधन म्हणून पुढे येत आहे पर्यावरण विज्ञानात एआयच्या मदतीने मोठ्या प्रमाणातील माहितीचे विश्लेषण करणे, नैसर्गिक बदलांचा अंदाज बांधणे आणि संवर्धनासाठी योग्य निर्णय घेणे शक्य झाले आहे. त्यामुळे पर्यावरणाचे संरक्षण, नैसर्गिक संसाधनांचे योग्य व्यवस्थापन आणि भविष्यातील पिढ्यांसाठी सुरक्षित पृथ्वी घडवण्यात एआय महत्वाची भूमिका बजावत आहे.

मुख्य भाग

१. पर्यावरण विज्ञानात एआयचा वापर

पर्यावरण विज्ञानामध्ये प्रचंड प्रमाणात डेटा उपलब्ध असतो हवामानाची नोंद, तापमान, पर्जन्यमान, वायुप्रदूषण, समुद्रपातळी, उपग्रह चित्रे इत्यादी. हा डेटा मानवी क्षमतेपेक्षा कितीतरी अधिक असतो. एआयच्या साहाय्याने या सर्व माहितीचे जलद व अचूक विश्लेषण करता येते. हवामानातील बदलांचे नमुने ओळखून भविष्यातील धोके आधीच समजतात, एआय आधारित मॉडेल्समुळे पूर, दुष्काळ, चक्रीवादळ, जंगलातील आग यांसारख्या नैसर्गिक आपत्तींचा अंदाज आधीच बांधता येतो. त्यामुळे प्रशासनाला



आरोग्य ओळखणे आणि पाण्याचा योग्य वापर करणे शक्य झाले आहे. यामुळे नैसर्गिक संसाधनांचा अपव्यय टाळता येतो. आणि शाश्वत शेतीला चालना मिळते.

जलसंवर्धनाच्या क्षेत्रातही एआय महत्वाची भूमिका बजावत आहे. पाण्याची गळती, भूजल पातळी आणि जलसाठ्यांचे व्यवस्थापन एआयद्वारे अधिक अचूक करता येते, कचरा व्यवस्थापन पुनर्वापर आणि पुनर्चक्रिकरण यांमध्ये एआय मुळे कार्यक्षमता वाढत आहे.

५. नैतिकता आणि मर्यादा -

एआयचे फायदे जरी मोठे असले तरी त्याचा वापर करताना नैतिकता आणि जबाबदारी महत्वाची आहे.

पर्यावरणीय डेटा सुरक्षित ठेवणे, स्थानिक समुदायांचे हक्क जपणे आणि एआयचा गैरवापर टाळणे आवश्यक आहे. एआय हे मानवाचे साधन आहे, मानवाचा पर्याय नाही. मानवी निर्णय, अनुभव आणि संवेदनशीलता यांची जोड एआयसोबत असणे गरजेचे आहे.

निष्कर्ष:

आज पर्यावरण विज्ञान आणि संवर्धनाच्या क्षेत्रात कृत्रिम बुद्धिमत्ता ही एक प्रभावी आणि आवश्यक साधन बनली आहे.

हवामान बदलाचा प्रभावी अभ्यास, प्रदूषण नियंत्रण, वन्यजीव संरक्षण, नैसर्गिक संसाधनांचे व्यवस्थापन आणि शाश्वत विकास या सर्व क्षेत्रांत एआय महत्वाची भूमिका बजावत आहे. योग्य नियोजन, नैतिक वापर आणि मानवी सहभागाच्या माध्यमातून एआयचा उपयोग केल्यास पृथ्वीचे संरक्षण करणे अधिक सुलभ होईल.

निसर्गाचे रक्षण करणे म्हणजेच मानवजातीचे भविष्य सुरक्षित करणे होय. त्यामुळे मानव निसर्ग आणि एआय यांचा समन्वय साधून पुढील पिढ्यांसाठी स्वच्छ, सुरक्षित आणि शाश्वत पर्यावरण निर्माण करणे ही आपली सामूहीक जबाबदारी आहे.



निसर्ग आणि तंत्रज्ञानाची साथ

पर्यावरण रक्षण आता, विज्ञानांच्या हाती,
कृत्रिम बुद्धिमत्ता आली, वसुंधरेच्या, नाती.
डेटाचा हा महासागर, अन् विश्लेषणाचे जाळे,
हवामानाचे बदल, आता, समजावे वेळेच्या कळे.

जंगलाच्या कोपऱ्यात कॅमेरे नजर ठेवती,
शिकारी अन् संकटांची, वर्दी आधीच देती.
उपग्रहांच्या डोळ्यांतून, हिस्वक सारी मोजली,
जंगलतोडीची भीती आता,
'एआय' ने ही ओळखली.

नद्यांचा हा प्रवाह अन्, प्रदूषणाचे भान,
पाण्याचे नियोजन आता, होईल एकदम छान.
स्मार्ट शेतीचा हा मार्ग, देईल पिकांना आधार,
स्वते आणि पाण्याचा, होईल योग्यच वापर.

संकटातल्या प्राण्यांची, आता वाचेल ही जात,
तंत्रज्ञानाने दिली पहा, निसर्गाला ही मात.
शाश्वत उदयाच्या स्वप्नाला, देऊया नवी भरारी,
'एआय' आणि निसर्ग मिळून,
घडवू सृष्टी ही साजरी.

► कु. ऋतुजा रमेश कुन्हाडे
बी.एससी. भाग ३

व्यवसायाचे महत्व



► कु. सानीका गावंडे
बी.एससी. भाग १

आजच्या स्पर्धात्मक युगात व्यवसायाला फार मोठे महत्व आहे. व्यवसाय म्हणजे केवळ पैसा कमावण्याचे साधन नसून तो रोजगारनिर्मिती, समाजविकास आणि देशाच्या आर्थिक प्रगतीचा एक महत्वाचा आधार आहे. लहान उद्योगांपासून ते मोठ्या बहुराष्ट्रीय कंपन्यांपर्यंत सर्व प्रकारचे व्यवसाय अर्थव्यवस्थेला चालना देतात. व्यवसाय करण्यासाठी धाडस, कष्ट, नियोजन असते. योग्य कल्पना, बाजारपेठेचा अभ्यास आणि ग्राहकांच्या गरजा ओळखून व्यवसाय सुरु केल्यास यश मिळण्याची शक्यता वाढते. आजच्या डिजिटल युगात ऑनलाइन व्यवसाय, स्टार्टअप्स, ई-कॉमर्स यांना विशेष महत्व प्राप्त झाले आहे. कमी भांडवलातही नवीन व्यवसाय सुरु करण्याच्या अनेक संधी उपलब्ध आहेत.

व्यवसायामुळे रोजगारनिर्मिती होते. अनेक लोकांना काम मिळते, त्यांच्या जीवनमानात सुधारणा होते आणि समाज आर्थिकदृष्ट्या सक्षम होतो. तसेच व्यवसायातून सरकारला कररूपाने उत्पन्न मिळते, ज्याचा उपयोग शिक्षा, आरोग्य आणि पायाभूत सुविधा विकसित करण्यासाठी होतो. यशस्वी व्यवसायासाठी प्रामाणिकपणा, ग्राहकसेवा आणि गुणवत्ता अत्यंत महत्वाची आहे. ग्राहक समाधानी राहिला तरच व्यवसाय दीर्घकाळ टिकतो. बदलत्या काळानुसार नवीन तंत्रज्ञान स्वीकारणे सतत शिकत राहणे आणि स्वतःमध्ये सुधारणा करणे हेही तितकेच गरजेचे आहे.

आज अनेक तरुण स्वतःचा व्यवसाय सुरु करण्याकडे वळत आहेत ही एक सकारात्मक बाब आहे. नोकरी मागणारा नव्हे, तर नोकरी देणारा बना ही प्रसंकल्पना प्रत्यक्षात आणण्यासाठी व्यवसाय खूप मोठी भूमिका बजावतो. एकंदरीत, व्यवसाय हा व्यक्ती, समाज

आणि देशाच्या प्रगतीसाठी अत्यंत आवश्यक आहे. योग्य मार्गदर्शन मेहनत आणि सकारात्मक दृष्टीकोन ठेवला तर व्यवसायात नक्कीच यश मिळू शकते. तसेच बदलत्या बाजारपेठेनुसार स्वतःमध्ये बदल करण्याची तयारी व्यवसायाला यशस्वी बनवते. व्यवसाय: आर्थिक मानवाच्या प्रगतीचा कणा मूलभूत गरजा पूर्ण करण्यासाठी व्यवसायाची सुरुवात झाली. अन्न, वस्त्र, निवारा या गरजांपासून ते आजच्या आधुनिक तंत्रज्ञानापर्यंत प्रत्येक टप्प्यावर व्यवसायाचा मोठा वाटा आहे व्यवसाय म्हणजे वस्तू किंवा सेवा तयार करून त्या लोकांपर्यंत पोहोचवणे आणि त्यातून नफा मिळवणे मात्र व्यवसाय केवळ नफ्यापुरता मर्यादित नसून ती समाजाच्या आणि देशाच्या विकासाचा मुख्य आधार आहे.

व्यवसायाचे अनेक प्रकार आहेत. उदा. उत्पादन व्यवसायात कच्च्या मालापासून तयार वस्तु बनवल्या जातात उदा. कारखाने, साखर उद्योग, कापड उद्योग, अन्नप्रक्रिया उद्योग सेवा व्यवसायात लोकांना सेवा दिल्या जातात, जसे की शिक्षण, आरोग्य सेवा बँकिंग विमा वाहतुक पर्यटन व्यापार व्यवसायात वस्तूंची खरेदी व विक्री केली जाते. घाऊक आणि आणि किरकोळ व्यापार यामध्ये येतो. आजच्या काळात व्यवसायाचे स्वरूप खूप बदलले आहे पूर्वी व्यवसायासाठी मोठ्या भांडवलाची गरज असायची. पण आता स्टार्टअप्स, ऑनलाइन व्यवसाय डीजिटल मार्केटिंग आणि ई-कॉमर्स यामुळे कमी भांडवलातही व्यवसाय सुरु करता येतो. इंटरनेट, मोबाईल ॲप्स, सोशल मिडिया यांचा वापर करून उत्पादनांची जाहिरात आणि जागतिक बाजारपेठेत पोहोचू शकतात. यशस्वी व्यवसायासाठी काही गुण अत्यंत महत्वाचे असतात. योग्य नियोजन, मेहनत, चिकाटी प्रामाणिकपणा वेळेचे व्यवस्थापन आणि जोखीम स्वीकारण्याची तयारी असावी लागते. ग्राहकांचे समाधान हेच व्यवसायाचे खरे यश मानले जाते. गुणवत्तेची तडजोड न करता, योग्य दरात सेवा किंवा वस्तु देणे आवश्यक आहे.

व्यवसायामुळे रोजगारनिर्मिती मोठ्या प्रमाणावर होते एका व्यवसायामुळे अनेक कुटुंबांना उपजीविकेचे साधन मिळते. त्यामुळे बेरोजगारी कमी होते आणि लोकांचे जीवनमान उंचावते तसेच व्यवसायातून सरकारला कररूपाने उत्पन्न मिळते, ज्याचा उपयोग रस्ते, शाळा, रुग्णालये आणि इतर सार्वजनिक सुविधांसाठी केला जातो.

ग्रामीण भागात लघु व कुटीर उद्योगांचे महत्व खूप



आहे. हातमाग शेतीपुरक उद्योग व्यवसाय, कुक्कुटपालन मधमाशी पालन यांसारखे व्यवसाय ग्रामीण अर्थव्यवस्थेला बळकटी देतात महिलांसाठी स्वयंरोजगाराच्या अनेक संधी व्यवसायातून उपलब्ध होतात. एकंदरीत व्यवसाय हा केवळ त्या व्यक्तीच्या आर्थिक उन्नतीसाठी नाही तर समाज आणि राष्ट्राच्या सर्वांगीण विकासासाठी अत्यंत आवश्यक आहे. योग्य मार्गदर्शन नावीन्यपूर्ण आणि सातत्यपूर्ण प्रयत्नाच्या जोरावर कोणताही व्यवसाय यशस्वी होऊ शकतो म्हणूनच आजच्या तरुण पिढीने नोकरीबरोबरच उद्योजकतेकडेही सकारात्मक दृष्टीकोन ठेवणे गरजेचे आहे. प्रामाणिकपणा, मेहनत आणि सातत्य ही यशस्वी व्यवसायाची प्रमुख मूल्ये आहेत. व्यवसायामुळे रोजगारनिर्मिती होते. देशाची अर्थव्यवस्था मजबूत होते आणि सामाजाच्या सर्वांगीण विकासाला चालना मिळते.

व्यवसायाचे महत्व -

व्यवसाय हा समाजाच्या आर्थिक प्रगतीचा कणा आहे व्यवसायामुळे रोजगारनिर्मिती होते, उत्पन्न वाढते आणि देशाची अर्थव्यवस्था मजबूत होते, शेती, उद्योग, सेवा क्षेत्र यात व्यवसायाचे स्थान महत्वाचे आहे. आजच्या स्पर्धात्मक युगात नावीन्य गुणवत्ता आणि ग्राहक समाधान यावर व्यवसायाचे यश अवलंबून असते.

उद्योजकता यशाकडे नेणारा मार्ग -

उद्योजकता म्हणजे नवीन कल्पनांना प्रत्यक्षात उतरण्याची कला. जोखीम पत्करणे, योग्य नियोजन करणे आणि सातत्य ठेवणे हे उद्योजकाचे गुणधर्म आहेत. भारतात स्टार्टअप संस्कृती वेगाने वाढत असून तरुण नोकरीपेक्षा व्यवसायाकडे वळताना दिसतो. उद्योजक देशाच्या विकासात महत्वाची भूमिका बजावतो.

लघुउद्योगांचे महत्व -

लघु व मध्यम उद्योग (MSME) हे भारताच्या अर्थव्यवस्थेचा कणा मानले जातात. कमी भांडवलात सुरु होणारे हे लघु उद्योग मोठ्या प्रमाणावर रोजगार निर्माण करतात. हातमाग अन्नप्रक्रिया हस्तकला यांसारखे उद्योग ग्रामीण विकासाला चालना देतात. सरकार विविध योजना कर्जसुविधा देऊन लघुउद्योगांना प्रोत्साहन देते.

डिजिटल व्यवसायाची वाढ -

डिजिटल क्रांतीमुळे व्यवसायाचे स्वरूप पूर्णपणे बदलले आहे. ई-कॉमर्स ऑनलाइन मार्केटिंग, डिजिटल पेमेंट यांमुळे ग्राहकांपर्यंत पोहोचणे सोपे झाले आहे. कमी खर्चात मोठ्या बाजारपेठेत प्रवेश करणे आज शक्य झाले

आहे. भविष्यात व्यवसाय अधिक वेगाने वाढेल.

व्यवसायात नैतिकतेचे महत्व -

व्यवसायात यश मिळविण्यासाठी केवळ नफा. महत्वाचा नसून नैतिकता तितकीच आवश्यक आहे. प्रामाणिकपणा, पारदर्शकता आणि सामाजिक जबाबदारी पाळणारा व्यवसाय दीर्घकाळ टिकतो. ग्राहकांचा विश्वास मिळवणे हेच खरे यश आहे.

महिलांचा व्यवसायातील सहभाग -

आज महिला विविध क्षेत्रांमध्ये यशस्वी व्यवसाय करत आहेत. गृहउद्योग, स्टार्टअप्स, सेवा क्षेत्रात महिलांचा सहभाग वाढत आहे. महिलांच्या आर्थिक स्वावलंबनामुळे कुटुंब आणि समाजाचा विकास होतो- सरकारकडून महिलांसाठी विशेष व्यवसाय उपलब्ध आहेत:

भविष्यात कृत्रिम बुद्धिमत्ता हरित उद्योग (green Business) आणि शाश्वत विकासावर आधारित व्यवसाय अधिक महत्वाचे ठरणार आहेत. बदल स्वीकारणारा आणि नव कल्पनांना वाव देणारा व्यवसायच टिकेल. योग्य शिक्षण, कौशल्य आणि मेहनत यांच्या जोरावर व्यवसायात यश मिळवता येते. व्यवसाय राष्ट्राच्या प्रगतीचा आधारस्तंभ मानवी जीवनाच्या मूलभूत गरजा पूर्ण करण्यासाठी व्यवसायाचा जन्म झाला. अन्न, वस्त्र, निवारा यांसारख्या गरजांपासून ते आधुनिक सुखसोयीपर्यंत सर्व काही व्यवसायावर अवलंबून आहे. म्हणूनच व्यवसाय हा केवळ उत्पन्नाचे साधन नसून तो राष्ट्राच्या आर्थिक सामाजिक आणि औद्योगिक प्रमुख आधारस्तंभ मानला जातो. व्यवसाय म्हणजे वस्तूचे उत्पादन वितरण आणि सेवांची देवाणघेवाण होय. शेती, उद्योग, व्यापार व सेवा क्षेत्र ही व्यवसायाची प्रमुख अंगे आहेत. शेती ही भारतीय अर्थव्यवस्थेची पायाभूत रचना असून उद्योग व व्यापार देशाच्या प्रगतीला गती देताना देतात सेवाक्षेत्रामुळे अर्थव्यवस्थेला स्थैर्य प्राप्त होते. व्यवसायाचे सर्वात मोठे योगदान म्हणजे रोजगारनिर्मिती मोठ्या उद्योगांपासून ते लघु, कुटीर उद्योगांपर्यंत लाखो लोकांना रोजगार मिळतो. त्यामुळे बेरोजगारी कमी होते. आणि लोकांचे जीवनमान उंचावते. व्यवसायामुळे राष्ट्रीय उत्पन्नात वाढ होऊन सरकारला कररुपाने महसूल मिळतो. जो शिक्षण, आरोग्य व पायाभूत सुविधा विकासासाठी वापरला जातो.

आजच्या स्पर्धात्मक युगात व्यवसाय करताना केवळ नफ्यावर लक्ष केंद्रित करून चालत नाही. ग्राहक समाधान गुणवत्ता, वेळचे पालन व नैतिकता यांना अनन्यसाधारण मान्य आहे. प्रामाणिक व पारदर्शक व्यवहार करणारा व्यवसायच दीर्घकाळ टिकतो. व्यवसायात सामाजिक जबाबदारी जपणे ही काळाची गरज बनली आहे.

तंत्रज्ञानात झपाट्याने होत असलेल्या प्रगतीमुळे व्यवसायाचे स्वरूप आमूलाग्र बदलले आहे. डिजीटल पेमेंट, ई-कॉमर्स, कृत्रिम बुद्धिमत्ता ऑनलाइन मार्केटिंग यामुळे व्यवसाय जागतिक पातळीवर पोहोचला आहे. लघु उद्योजकांनाही मोठ्या बाजारपेठेत प्रवेश मिळू लागला आहे: स्टार्ट अप, मेक इन इंडिया आणि डिजिटल इंडिया आहे. महिलांचा व्यवसायातील सहभाग यासारख्या योजनांमुळे नवउद्योजकांना प्रोत्साहन मिळत आहे. ही आधुनिक काळातील महत्वाची बाब ठरत आहे. महिला स्वयंरोजगार, गृहउद्योग, स्टार्ट अप यामुळे आर्थिकदृष्ट्या स्वावलंबी होत आहेत. ग्रामीण भागातील लघुउद्योग व सहकारी संस्था ग्रामीण अर्थव्यवस्थेला बळकटी देत आहेत. भविष्यात व्यवसाय करताना शाश्वत विकास पर्यावरणपुरक उद्योग आणि हरित तंत्रज्ञान यांना विशेष महत्व प्राप्त होईल. बदल स्वीकारणारा नवकल्पनांना वाव देणारा आणि नैतिक मूल्यांचे पालन करणारा व्यवसाय यशस्वी ठरेल. अखेरीस असे म्हणता येईल की व्यवसाय हा राष्ट्राच्या विकासाचा कणा आहे, मेहनत, नियोजन, नाविन्य आणि प्रामाणिकपणा यांच्याआधारे व्यवसाय केल्यास वैयक्तिक समृद्धीबरोबरच देशाच्या प्रगतीला देखील हातभार लागतो. म्हणूनच व्यवसायाकडे सकारात्मक दृष्टीने पाहणे ही आजच्या काळाची आर्थिकदृष्ट्या गरज आहे. संपूर्ण मागदर्शक व्यवसाय म्हणजे माल किंवा सेवा निर्मिती आणि विक्री करणे, ज्यातून नफा कमविला जातो. व्यवसाय समाजातील अर्थव्यवस्थेत महत्वपूर्ण भूमिका बजावतो. कारण तो रोजगार निर्माण करतो. उत्पादन सामाजिक गरजा पूर्ण करतो आणि आर्थिक विकासात योगदान देतो.

व्यवसायाचे प्रकार -

व्यवसाय विविध प्रकारांचा असतो. वर्गीकरण मुख्यत्वे त्यांच्या कार्यप्रणालीवर उत्पन्नाच्या स्रोतावर व उद्दिष्टावर अवलंबून असतो. उत्पादन व्यवसाय घेऊन (Manufacturing Business) कच्चा माल घेऊन उत्पादन तयार करणे, मोठ्या प्रमाणावर आवश्यक उत्पादन खर्च जास्त असतो, पण नफा उच्च असतो. सेवा व्यवसाय ग्राहकांना सेवा पुरवतो. प्रत्यक्ष वस्तू नाही. रेस्टॉरंट, शिक्षण संस्था, बँकिंग सेवा, सॉफ्टवेअर गुणवत्ता आणि ग्राहक सेवा यावर आधारित नफा व्यापार व्यवसाय (Trading Business) माल खरेदी करून विक्री करतो. किराणा दुकान, फर्निचर शॉप, ई-कॉमर्स, स्टॉक व्यवस्थापन महत्वाचे विक्रीचा नफा मुख्य उत्पन्न स्रोत सहकारी व्यवसाय (Partnership & Cooperative) दोन किंवा अधिक लोक नफा वाटून घेतात. उदा. लॉ फर्म स्टार्टअप, कृषी सहकारी जोखीम वाटून घेता येते. निर्णय प्रक्रियेत सहकार्य

आवश्यक, ऑनलाइन व्यवसाय (Online Business) इंटरनेटवरून सेवा किंवा उत्पादने विकतो. ई-कॉमर्स, वेबसाईट, डिजीटल मार्केटिंग, ब्लॉगिंग, ऑनलाइन कोर्सेस, जागतिक बाजारपेठेत प्रवेश कमी भौतिक खर्च पण डिजिटल कौशल्य आवश्यक. व्यवसाय सुरु होणे महत्वाचे. घटक व्यवसाय कल्पना, बाजारातील गरज आणि स्पर्धा समजून संकल्पना ठरवणे. व्यवसायासाठी भांडवल, निधी, कर्ज किंवा गुंतवणूक योजना, मार्केटिंग, उत्पादन, विक्री व्यवस्थापन याचे नियोजन, कायदेशीर बाबी नोंदणी, परवाने, कर नियम पाळणे, व्यवस्थापन कौशल्य, कर्मचारी, वेळ, खर्च याचा समतोल, व्यवसायाचे फायदे, आर्थिक स्वतंत्रता, स्वतःचे उत्पन्न स्रोत रोजगार निर्मिती समाजातील लोकांना नोकरी. सामाजिक योगदान, गरजू लोकांना उत्पादने आणि सेवा उपलब्ध करणे, प्रतिष्ठा, व्यवसायातील यशामुळे नाव आणि विश्वास प्राप्त होतो. व्यवसायाचे आव्हाने, आर्थिक जोखीम काही व्यवसाय नफा न देतील, स्पर्धा मार्केटमध्ये इतर स्पर्धक मार्केट बदल, ग्राहकांची पसंती बदलणे कायदेशीर अडचणी, परवाने, कर, नियम पाळणे व्यवसाय हा मानवी जीवनाचा अविभाज्य भाग आहे. समाजाच्या गरजा पूर्ण करणे आणि आर्थिक विकास घडवून आणणे हे व्यवसायाचे मुख्य उद्दिष्ट असते. उत्पादन, सेवा, व्यापार आणि उद्योग या सर्व गोष्टी व्यवसायाच्या कक्षेत येतात. आजच्या स्पर्धात्मक युगात व्यवसाय फक्त नफा मिळवण्यासाठी नसून गुणवत्ता गीतास आणि ग्राहक समाधान यावर आंधारित असतो. तंत्रज्ञानाच्या प्रगतीमुळे ऑनलाईन व्यवसाय, डिजीटल मार्केटिंग आणि ई-कॉमर्स यांना मोठे महत्त्व प्राप्त आहे. कमी भांडवलात व्यवसाय करताना योग्य नियोजन करणे शक्य झाले आहे. बाजाराचा अभ्यास आर्थिक व्यवस्थापन आणि कुशल मनुष्यबळ आवश्यक तसेच बदलत्या बाजारपेठेनुसार स्वतःमध्ये बदल करण्याची तयारी व्यवसायाला यशस्वी बनवते. प्रामाणिकपणा, मेहनत आणि सातत्य ही यशस्वी व्यवसायाची प्रमुख मूल्ये आहेत. व्यवसाय करताना योग्य नियोजन, बाजाराचा अभ्यास, आर्थिक व्यवस्थापने आणि कुशल मनुष्यबळ आवश्यक असते.





संघर्ष स्वतः विरुद्ध



► कु. नंदीनी प्रभाकर चव्हाण
बी.एससी. भाग २

त्यांच्याशी संघर्ष करणे आवश्यक आहे.

स्वतः विरुद्धचा संघर्ष आपल्याला शिस्त शिकवतो. तो आपल्याला सांगतो की प्रत्येक इच्छा पूर्ण करणे आवश्यक नसते. जेव्हा आपण इच्छांवर नियंत्रण ठेवायला शिकतो, तेव्हाच आपण खऱ्या अर्थाने मुक्त होतो, आचार्य प्रशांतजी म्हणतात की स्वातंत्र्य म्हणजे मनमानी करणे नव्हे, तर योग्य आणि अयोग्य यातील फरक ओळखणे होय.

आचार्य प्रशांतजी यांच्या मते जीवनातील सर्वात मोठा आणि आवश्यक संघर्ष हा बाहेरील जगाशी नसून स्वतः विरुद्ध असतो. आपण अनेकदा आपल्या समस्यांसाठी लोकांना, परिस्थितींना किंवा समाजाला दोष देतो; परंतु आचार्य प्रशांतजी सांगतात की खरा दोष आपल्यात लपलेला असतो. जोपर्यंत आपण स्वतःला ओळखत नाही, तोपर्यंत बाह्य बदल आपल्याला खरी शांती देऊ शकत नाही.

मानवाचे मन इच्छा, भीती, लोभ अहंकार या भ्रमांनी भरलेले असते. आपण विचार न करता आपल्या सवयींमागे आणि इच्छांमागे धावत राहतो. ह्याच सवयी पुढे जाऊन आपल्या दुःखाचे कारण बनतात. आचार्य प्रशांतजी म्हणतात की संघर्ष म्हणजे कोणाशी भांडणे नव्हे, तर आपल्या चुकीच्या समजुतीशी लढा देणे होय. जेव्हा आपण स्वतः कडे प्रामाणिकपणे पाहतो, तेव्हाच खऱ्या बदलाची सुरुवात होते.

‘स्वतः विरुद्ध संघर्ष’ याचा अर्थ आहे—आळशीपणाविरुद्ध, भीतीविरुद्ध, खोट्या सुखांविरुद्ध आणि अहंकारविरुद्ध उभे राहणे. हा संघर्ष सोपा नसतो, कारण स्वतःच्या चुका स्वीकारणे हे सर्वात कठीण काम असते. आपण इतरांच्या चुका पटकन पाहतो पण स्वतःच्या चुका मान्य करण्यापासून पळ काढतो.

आचार्य प्रशांतजी यांच्या मते आत्मपरीक्षणशिवाय आत्मविकास शक्य नाही.

आजचा माणूस बाह्य सुख-सोयींमध्ये अडकलेला आहे. मोबाईल, पैसा, प्रसिध्दी आणि भोग-विलास यालाच तो यश मानतो. पण आचार्य प्रशांतजी सांगतात की ही सर्व सुखे क्षणिक आहेत. खरे सुख तेव्हाच मिळते, जेव्हा मन शांत असते आणि माणूस स्वतःशी प्रामाणिक असतो, त्यासाठी आपल्या आतल्या नकारात्मक प्रवृत्ती ओळखून

वैयक्तिक विचार -

माझ्या मते स्वतः विरुद्ध संघर्ष हा जीवनातील सर्वात खरा आणि आवश्यक संघर्ष आहे. आपण अनेकदा आपल्या अपयशासाठी परिस्थिती किंवा इतर लोकांना दोष देतो, पण जेव्हा आपण प्रामाणिकपणे स्वतःकडे पाहतो, तेव्हा कळते की आपला कमकुवतपणाच आपल्या मार्गातील मोठे अडथळे आहेत.

आळस, भीती आणि सवयी आपल्याला पुढे जाण्यापासून थांबवतात. जर आपण त्यांच्यावर मात केली, तर कोणतीही अडचण मोठी वाटत नाही.

मला असे वाटते की आत्मपरीक्षणामुळे आपल्याला योग्य दिशा मिळते. आपण आपल्या चुका स्वीकारतो, तेव्हाच सुधारणा सुरु होते. हा संघर्ष आपल्याला शिस्त, संयम आणि आत्मविश्वास शिकवतो. शेवटी, स्वतःशी लढून स्वतःला चांगले बनवणे हाच खरा यशाचा मार्ग आहे.

सारांश -

स्वतः विरुद्ध संघर्ष याचा सार असा की जीवनातील खरी लढाई बाह्य परिस्थितीशी नसून आपल्या आतल्या कमकुवतपणाशी असते. इच्छा, भीती, आळस आणि अहंकार हेच आपल्या दुःखाचे मुख्य कारण असतात. जेव्हा माणूस आत्मपरीक्षण करतो आणि वाईट सवयींशी संघर्ष करतो, तेव्हाच खरा बदल घडतो. मनावर नियंत्रण आणि योग्य समज विकसित केल्याने जीवनात शांती, शिस्त आणि खरे यश मिळते.



माझे आवडते पुस्तक - श्यामची आई

मला पुस्तके वाचायला खूप आवडते पुस्तक वाचन हा माझा छंद आहे, तसे पाहता आजपर्यंत मी अनेक पुस्तके वाचली आहेत परंतु त्यामध्ये माझे आवडते पुस्तक श्यामची आई हे आहे.

श्यामची आई हे पांडुरंग सदाशिव साने, उर्फ साने गुरुजी यांनी लिहीलेले मराठी साहित्यातील एक अजरामर पुस्तक आहे. हे पुस्तक मराठी साहित्यातील वैभवशाली परंपरेत एक मौल्यवान रत्न मानले जाते. साने गुरुजींनी या पुस्तकात त्यांच्या आयुष्यातील बालपणाचे आणि याचा आईचे आठवणी शब्दबद्ध केले आहे. पुस्तकात श्याम या लहान मुलाचे आणि त्याच्या आईचे नाते उलगडले आहे. आईची माया, तिचे त्याच्याबद्दलचे शिक्षणाचे आणि संस्कारचे तत्वज्ञान, तसेच तिच्या कष्टाळू स्वभावाची प्रेरणादायी कथा या पुस्तकात प्रभावीपणे मांडली आहे. आईचे मूलांवर असलेल्या निस्सीम प्रेमाची आणि त्यागाची अद्वितीय कहाणी यातून उभी राहते.

श्यामची आई ही केवळ आई म्हणून नव्हे, तर एक मार्गदर्शिका, शिक्षक आणि स्नेही म्हणूनही वाचकांना भावते. तिच्या साध्या परंतु मर्मभेदी शिकवणीनी श्यामला जीवनातील उच्च मूल्याची ओळख करून दिली.

या पुस्तकातील साधी भाषा, भावनिक संवाद आणि हृदयाला भिडणारी कथा वाचकांना मंत्रमुग्ध करते. श्यामची आई हे पुस्तक मला नेहमी जीवनातील महत्वाचे मुल्य, प्रेम, त्याग आणि कुटुंबीयांबद्दलची निष्ठा याची जाणीव करून देते. ही कथा केवळ एका आईच्या जीवनाचा आरसा नसून प्रत्येक वाचकांच्या मनाला विचार करायला भाग पाडते. त्यामुळे हे पुस्तक माझ्या जीवनात विशेष स्थान मिळवून आहे.

पुस्तके ही आपल्या जीवनाची अमूल्य संपत्ती आहेत. ती आपल्याला नवा दृष्टीकोन, नवे विचार, आणि सकारात्मक जीवन जगण्याची प्रेरणा देतात. अनेक उत्कृष्ट पुस्तकांच्या सोबतीने मी माझ्या विचारांना बळकटी दिली आहे. परंतु त्यापैकी एक पुस्तक ज्याने मला अत्यंत भावनिक आणि मानसिक पातळीवर प्रभावित ते म्हणजे पांडुरंग सदाशिव साने उर्फ साने गुरुजी यांनी लिहीलेले 'श्यामची आई'.

श्यामची आई हे पुस्तक साने गुरुजींनी त्यांच्या स्वतःच्या जीवनातील काही आठवणींवर आधारित लिहीलेले आहे. हे पुस्तक त्यांच्या आईच्या जीवनमूल्यांवर आधारित असून आईचे आपल्या मुलावर असलेले प्रेम, तिच्या शिकवणी आणि त्याग याचे सुरेख चित्रण आहे. श्याम हा लेखक स्वतः आहे, आणि या पुस्तकातील प्रत्येक प्रसंगात आईचे महत्त्व अधोरेखित करण्यात आले आहे. शिकविते, त्याला चांगला माणूस बनवण्यासाठी प्रयत्न करते.

► कु. साक्षी खडसे
बी.एस्सी. भाग २

हे साने गुरुजींनी प्रभावीपणे मांडले आहे. श्यामची आई जीवनामूल्यांवर आधारीत एक प्रेरणादायी कथा आहे.

पुस्तकातील अनेक प्रसंग हृदयस्पर्शी आहेत. एकीकडे श्यामच्या आईने त्याला सचोटी, प्रामाणिकपणा आणि दयाळूपणाचे धडे दिले, तर दुसरीकडे तिने स्वतःच्या सुखाचा त्याग करून मुलाचे भविष्य घडवले.

एक प्रसंग असा आहे की श्यामने आपल्या मित्राला तोडलेले आंबे दिले. आणि त्याच्या आईने त्याला समजावले की दुसऱ्याच्या मालमतेचा आदर करणे किती महत्वाचे आहे. या प्रसंगातून नितीमुल्याचा धडा शिकवण्याची आईची पद्धत खूपच प्रेरणादायी आहे. श्यामची आई हे पुस्तक त्याग, प्रेम आणि सहनशीलतेचे प्रतीक आहे. तिने अत्यंत हलाखीच्या परिस्थितीतही आपल्या मुलाला योग्य शिक्षण दिले.

ती श्यामला फक्त चांगला मूलगा नाही तर चांगला माणूस बनवण्यासाठी सतत प्रयत्न करते. जीवनात नितिमत्ता, प्रामाणिकपणा आणि दयाळूपणा किती महत्वाचे आहेत. हे या पुस्तकातून कळते. आजच्या धावपळीच्या जीवनात आईच्या त्यागाचा आणि तिच्या शिकवणीचा आपल्याला विसर पडला आहे. हे पुस्तक आपल्याला त्या मूल्याची जाणीव करून देते.

श्यामची आई वाचून मला आईचे महत्त्व अधिक स्पष्टपणे जाणवले. तिचे कष्ट, तिच्या शिकवणी आणि तिचे माझ्यावर असलेले निस्सीम प्रेम मी नव्याने अनुभवले. या पुस्तकाने मला जीवनात प्रामाणिकपणा, कृतज्ञता आणि नम्रता याचे महत्त्व पटवून दिले. आई ही प्रत्येकाच्या जीवनातील पहिली गुरु आहे. तिच प्रेम आणि संस्कार आपल्या आयुष्याला घडवतात. आपण आईच्या त्यागाचा सन्मान केला पाहिजे आणि तिला कधीही विसरू नये.

श्यामची आई हे पुस्तक आईचे महत्वाची जाणीव करून देणारे प्रेरणादायी साहित्य आहे. श्यामची आई हे पुस्तक प्रत्येकाने एकदा तरी वाचावे. आईचे आपल्या जीवनातील स्थान, तिच्या शिकवणीचे महत्त्व आणि तिच्या कष्टाची जाणीव करून देणारे हे पुस्तक मनाला सकारात्मक विचारांनी प्रेरणा देते. साने गुरुजींनी लिहीलेले हे साहित्य खऱ्या अर्थाने अमूल्य आहे. माझ्या आयुष्यात या पुस्तकाने मला नवी दिशा दिली आहे आणि म्हणूनच श्यामची आई हे माझे आवडते पुस्तक आहे.





विंग्ज ऑफ फायर



► कु. प्रज्वली गजानन डंबारे
बी.एससी. भाग १

- क्षेपणास्त्र कार्यक्रम आणि मिसाइल मॅन म्हणून ओळख
- जीवनातील अनुभव आणि वैज्ञानिक दृष्टिकोनाचे वर्णन

पुस्तकाचे महत्त्व :-

- कलाम यांच्या जीवनातील अनुभवांचे वर्णन
- वैज्ञानिक दृष्टिकोन आणि जीवनातील प्रेरणा
- देशासाठी योगदान आणि राष्ट्रनिर्माणातील भूमिका

मूल्यमापन:-

प्रेरणादायी : कलाम यांच्या जीवनातील अनुभव आणि त्यांच्या वैज्ञानिक दृष्टिकोनाचे वर्णन हे वाचकांना प्रेरित करते. कलाम यांच्या वैज्ञानिक कला दृष्टिकोनाचे वर्णन आहे, जे वाचकांना विज्ञान आणि तंत्रज्ञानाच्या महत्वाची जाणीव करून देते.

देशभक्ती : कलाम यांच्या देशभक्तीचे वर्णन हे वाचकांना देशासाठी योगदान देण्याची प्रेरणा देते.

जीवनातील अनुभव: पुस्तकात कलाम यांच्या जीवनातील अनुभवांचे वर्णन आहे, जे वाचकांना जीवनातील आव्हानांचा सामना करण्याची प्रेरणा देते.

या पुस्तकात कलाम यांच्या जीवनातील काही अनुभवांचे वर्णन नाही जे वाचकांना जाणून घ्यायचे असते. एपीजे अब्दुल कलाम यांचे आत्मचरित्र आहे जे वाचकांना प्रेरित करते. वैज्ञानिक दृष्टिकोनाचे वर्णन आहे, जे वाचकांना जीवनातील चुनौतींचा सामना करण्याची प्रेरणा देते.

व्यक्तिमत्त्व :-

कलाम यांचा निश्चय त्यांच्या व्यक्तिमत्त्वाचा एक भाग आहे जे त्यांना जीवनातील आव्हानांचा सामना करण्यास मदत करतो. कलाम यांचा साहस त्यांच्या व्यक्तिमत्त्वाचा एक भाग आहे, जे त्यांना नवीन संघर्षांचा सामना करण्यास मदत करतो. जे त्यांना सर्व लोकांशी जोडण्यास मदत करते. त्यांचे व्यक्तिमत्त्व वाचकांना जीवनातील आव्हानांचा सामना करण्याची प्रेरणा देते. आणि लोकांशी जोडण्यास मदत करते.

निष्कर्ष - ए.पी.जे. अब्दुल कलाम यांचे आत्मचरित्र Wings of Fire एक प्रेरणादायी पुस्तक आहे. जे वाचकांना चुनौतीचा सामना करण्याची प्रेरणा देते. कलाम यांच्या जीवनातील वर्णने हे पुस्तकाच्या प्रमुख वैज्ञानिक दृष्टिकोनाचे वर्णन हे पुस्तकाच्या प्रमुख आकर्षणांपैकी एक आहे. पुस्तकात कलाम यांच्या जीवनातील सामना करण्याच्या अनुभवांचे वर्णन आहे.

परिचय -

डॉ.ए. पी.जे. अब्दुल कलाम यांच्या विंग्ज ऑफ फायर पुस्तकाचा साधा आढावा आहे. हे त्यांचे आत्मचरित्र आहे जे त्यांचे प्रारंभिक जीवन आणि कार्यक्रमांमधील त्यांचे योगदान दर्शविते.

हे पुस्तक त्यांच्या जीवनातील विविध अनुभवांचे वर्णन करते. यात त्यांचे बालपण, शिक्षण, वैज्ञानिक आणि राष्ट्रपती म्हणून त्यांचा कार्यकाळ यांचा समावेश आहे.

कलाम यांच्या जीवनातील अनुभव आणि त्यांच्या वैज्ञानिक दृष्टिकोनाचे वर्णन हे पुस्तकाच्या प्रमुख आकर्षणांपैकी एक आहे. त्यांनी भारतीय अंतराळ संशोधन आणि क्षेपणास्त्र कार्यक्रमांमध्ये केलेल्या कामगिरीचे वर्णन केले आहे. ज्यामुळे ते भारताचे मिसाइल मॅन म्हणून ओळखले जाऊ लागले. पुस्तकाचे लेखन साधे आणि प्रभावी आहे, ते वाचकांना आकर्षित करते. कलाम यांच्या जीवनातील अनुभव आणि त्यांच्या वैज्ञानिक दृष्टिकोनाचे वर्णन हे पुस्तकाच्या प्रमुख आकर्षणांपैकी एक आहे.

सारांश -

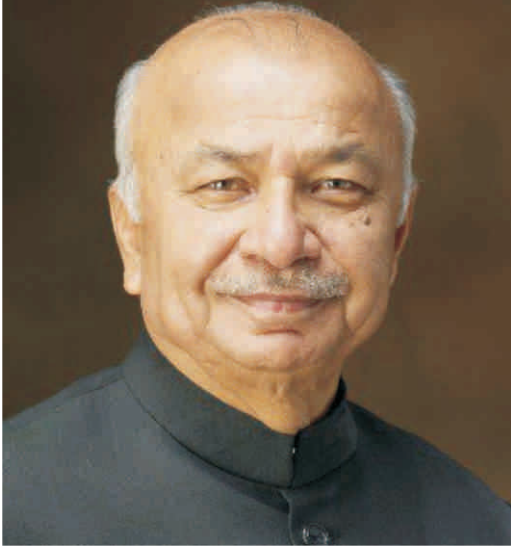
अब्दुल कलाम यांचे आत्मचरित्र Wings of Fire एक प्रेरणादायी पुस्तक आहे जे वाचकांना जीवनातील आव्हानांचा सामना करण्याची प्रेरणा देते. सारांश किंवा संक्षेप. हे ए.पी.जे. अब्दुल कलाम यांच्या Wings of Fire आत्मचरित्राचा सारांश आहे.

ए.पी.जे. कलाम यांचे आत्मचरित्र Wings of Fire हे त्यांच्या जीवनातील अनुभवांचे वर्णन करते, यात त्यांचे बालपण, शिक्षण, वैज्ञानिक जीवन आणि राष्ट्रपती म्हणून कार्यकाळ यांचा समावेश आहे.

पुस्तकाचे प्रमुख बिंदू :-

- कलाम यांचे बालपण आणि शिक्षण
- वैज्ञानिक जीवन आणि भारतीय अंतराळ संशोधन कार्यक्रमातील योगदान

एका संघर्षाची वाटचाल



संघर्षातून घडते माणसाचे आयुष्य
अंधारातही पेटते आशेचे दिवटं नित्य।
सामान्य माणसातून घडतो असामान्य नेता।
हीच सांगते संघर्षाची वाटचाल कथा.

आत्मचरित्र म्हणजे केवळ आयुष्याची कहाणी नसते, ते म्हणजे संघर्षातून घडलेल्या विचारांची साक्ष असते. एका संघर्षाची वाटचाल हे सुशीलकुमार शिंदे यांच्या आत्मचरित्रावर आधारीत आहे. हे पुस्तक सत्ता, पद आणि प्रतिष्ठेचे प्रदर्शन करत नाही तर गरिबीतून वेदनेतून आणि संघर्षातून घडलेल्या माणसाची सत्यकथा मांडते. आजच्या स्पर्धात्मक, अस्थिर आणि तणावग्रस्त समाजात हे पुस्तक वाचकाला एक स्पष्ट संदेश देते. परिस्थिती माणसाला मोडत नाही, ती त्याला घडवते. हे आत्मचरित्र वाचताना वाचकाला जाणवते की नेतृत्व हे जन्मजात नसते, तर संघर्षातून घडत जाते. एका संघर्षाची वाटचाल ही सुंदर वाचनीय चरित्रकथा नाही, ती जीवनाला शक्यतेच्या आवाक्यात आणण्यासंबंधीची गोष्ट आहे. 'मी करू शकतो' असे सांगणारी ही कथा आहे. शब्दसामर्थ्य, विचारांचे सामर्थ्य आणि कृतीचे सामर्थ्य सांगणारी ही कथा आहे. अशक्याचे शक्यमध्ये रूपांतर करत यशोशिखराकडे जाणाऱ्या जीवनप्रवासाची ही कहाणी आहे.

► कु. साक्षी श्री. जिचकार
बी.एससी. भाग ३

“जगण्याच्या रणांगणात जो शिकतो तो टिकतो,
अंधारातून वाट काढत स्वतःला घडवतो।
संघर्ष ज्याचा श्वास, धैर्य ज्याचं शस्त्र
तोच लिहतो इतिहास, उभा करतो नवा दृष्टांत।”

सारांश-

अनेक वेळा आपल्या आयुष्यात अशा घटना घडतात की त्यावेळी त्या अन्यायकारक, वेदनादायक किंवा निराशाजनक वाटतात. मात्र काळाच्या ओघात लक्षात येते की घडतं ते भल्यासाठीच असतं. प्रत्येक अपयशामागे एक शिकवण असते आणि प्रत्येक अडचणीमागे एक नवी संधी लपलेली असते. जीवनात यश सहज मिळत नाही; त्यासाठी सतत प्रयत्न संयम आणि सकारात्मक दृष्टीकोन आवश्यक असतो.

संधी प्रत्येकाच्या आयुष्यात येते पण ते ओळखण्याची आणि स्वीकारण्याची तयारी प्रत्येकाकडे नसते. जो माणूस संघर्षातून शिकतो, तोच आलेली संधी योग्य वेळी स्वीकारतो. यश जेव्हा दाराशी येते, तेव्हा गर्व न करता त्याचा उपयोग समाजासाठी केलेले कार्य अधिक मोठे आणि टिकाऊ असते.

बालपणातील संघर्ष-

बालपणात अनुभवलेली गरिबी ही सुशीलकुमार शिंदे त्यांच्या आयुष्याची सर्वात मोठी शाळा ठरली. इतर मुलांप्रमाणे सुखसोयी त्यांना मिळाल्या नाहीत. मात्र, याच परिस्थितीने त्यांना कष्टाचे मोल शिकवले. अन्याय सहन न करता त्याविरुद्ध आवाज उठवण्याची मानसिकता त्यांच्या मनात लहानपणापासूनच तयार झाली.

बालपणी आलेल्या अडचणी माणसाला आतून मजबूत करतात. अपमान, अपेक्षा आणि दुर्लक्ष सहन करतात मन कठोर होते. मात्र याच कणखरतेतून जिद्ध निर्माण होते. जिद्ध हीच संघर्ष करणाऱ्या माणसाची खरी ओळख असते. जी व्यक्ती जिद्ध सोडत नाही, तीच भविष्यात



यशाला गवसणी घालते. बालपणी मिळालेला संघर्षाचा अनुभव पुढील आयुष्याला दिशा देतो. तो अनुभव जमिनीवर पाय ठेवतो. यश माणसाला मिळाल्यानंतरही गर्व येऊ देत नाही. कारण ज्याने हालअपेष्टा पाहिलेल्या असतात. त्याला कष्टाचे मोल कळते.

संघर्षाची संकल्पना आणि जीवनदृष्टी -

संघर्ष म्हणजे केवळ दारिद्र्याशी किंवा प्रतिकूल परिस्थितीशी दिली जाणारी झुंज नव्हे. संघर्ष हा माणसाच्या अंतर्मनात चालणारा अखंड संवाद आहे. स्वप्न आणि वास्तव यांच्यातील, अपेक्षा आणि मर्यादा यांच्यातील. संघर्षाला लेखक नकारात्मक संकल्पना न मानता, तो जीवनाला आकार देणारा सकारात्मक घटक कसा ठरतो. हे विविध अनुभवांच्या आधारे स्पष्ट करतो. संघर्षातूनच माणसाला स्वतःची ओळख मिळते, आत्मभान जागृत होते आणि मूल्यांची जडण-घडण होते. मानवी जीवन म्हणजे संघर्षाची अखंड मालिका आहे. जन्मापासून मृत्यूपर्यंत प्रत्येक व्यक्तीला वेगवेगळ्या अडचणींना, संकटांना आणि आव्हानांना सामोरे जावे लागते. काही जण या संघर्षापुढे हार मानतात. तर काही जण त्याच संघर्षांना आपली खरी ताकद बनवून यशाचा मार्ग शोधतात. तर संघर्ष हा जीवनाचा शाप नसून तो माणसाला घडवणारा एक महत्वाचा टप्पा आहे. संघर्षाशिवाय आणि प्रयत्नांशिवाय जीवनाला अर्थ नाही आणि किंमत नाही. जगायचं तर शिकायचं हा विचार केवळ वाक्य नसून तो संपूर्ण जीवन दृष्टी आहे. शिक्षण म्हणजे फक्त पुस्तकी ज्ञान मिळवणे नव्हे, तर जीवन कसे जगावे, अडचणींना कसे सामोरे जावे आणि उभे राहावे हे अपयशातून कसे शिकवणे होय. शिक्षणामुळे माणसामध्ये विचार करण्याची क्षमता निर्माण होते. तो योग्य-अयोग्य यामधील स्वतःचा फरक ओळखू लागतो हक्कांसाठी उभा राहण्याचे धैर्य त्याच्यामध्ये निर्माण होते.

आपणही एक पाऊल शिखराकडे या भूमिकेतून वाचकाशी संवाद साधतो शिखर म्हणजे केवळ सामाजिक प्रतिष्ठा किंवा आर्थिक यश नव्हे, तर आत्मसंतोष आणि स्वाभिमानाची अवस्था आहे. प्रत्येक माणसाच्या आयुष्यात शिखर गाठण्याची क्षमता असते. मात्र त्यासाठी आवश्यक असते सातत्य कष्ट आणि आत्मविश्वास. छोट्या पावलांनी

का होईना पण योग्य दिशेने केलेली वाटचाल शेवटी मोठे यश देऊन जाते. समाजातील अनेक व्यक्ती प्रतिभावान असूनही परिस्थितीच्या ओझ्याखाली दबल्या जातात. आर्थिक विवंचना, सामाजिक विषमता, शिक्षणाच्या संधीचा अभाव यामुळे अनेक स्वप्ने कोमेजतात. लेखक म्हणतो रितल्या काळ्या ही प्रतिमा या वास्तवाचे हृदयस्पर्शी चित्रण करतो. पण त्याच वेळी समाजव्यवस्थेच्या जबाबदारीची जाणीव करून देते. अनेकवेळा समाजाकडून टीका विरोध आणि गैरसमज सहन करावा लागतो. मात्र ध्येय स्पष्ट असेल तर अशा अडथळ्यांवर मात करता येते. हळूहळू मेहनतीचे फळ दिसू लागते. अपयशाची जागा आत्मविश्वास घेतो आणि संधी यशात रुपांतरीत होते. दुःख आलं म्हणून जीवन थांबत नसतं, तेच तर माणसाला अधिक मजबूत बनवतं. जखमा देतं, शहाणपणही शिकवत, दुःखाशिवाय सुखाचं मोल कळत नसत. मानवी जीवनातील दुःख अनेकदा सहनशक्तीच्या पलीकडे जाणारे असते. लेखक दुःखाचे भावनिक उदात्तीकरण न करता, त्यामागील सामाजिक आणि मानसिक कारणांचा शोध घेतो. दुःख माणसाला मोडून काढते. पण त्याचवेळी त्याला अधिक संवेदनशील आणि प्रगल्भ बनवते. दुःखाशिवाय जीवनातील सुखाची किंमत कळत नाही हा तत्त्वज्ञानात्मक विचार येथे ठळकपणे मांडला आहे. आजच्या स्पर्धात्मक युगात तत्काळ यशाची अपेक्षा वाढत चालली आहे. अशा काळात लेखक सातत्याने आणि संयमाने महत्त्व अधोरेखित करतो. यशाची वाटचाल ही नेहमीच वेगवान असेल असे नाही; ती संथ असते. पण, लक्ष्य कधी ठाम असेल तर अपयश अंतिम ठरत नाही. हे प्रकरण विद्यार्थ्यांसाठी

विशेष प्रेरणादायी आहे जगायचं तर शिकायचं शिक्षण ही केवळ पुस्तकी ज्ञानापुरती मर्यादित संकल्पना नसून ती जीवनभर चालणारी प्रक्रिया आहे. लेखक अनुभवातून शिकण्यावर भर देतो. चुका, अपयश, टीका हे सारे शिक्षणाचेच भाग आहेत. या प्रकरणातून लेखक आधुनिक शिक्षणव्यवस्थेवर अप्रत्यक्ष भाष्य करतो आणि आत्मविकासाची व्यापक संकल्पना मांडतो.

कोणत्याही संघर्षात माणूस एकटा नसतो. कुटुंब, मित्र, गुरू आणि काही संवेदनशील सहप्रवासी हेच जीवनप्रवासातील आधारस्तंभ असतात. लेखकाने

कृतज्ञतेच्या नात्यांचे महत्व हे विशद केले आहे. मानवी संबंधांशिवाय संघर्षाची वाटचाल अशक्य आहे हा विचार येथे अधोरेखित होतो.

यशाचा उपयोग स्वतःपुरता न ठेवता समाजासाठी करणं हीच यशाची खरी सार्थकता आहे. समाजाचे ऋण फेडण्याची जाणीव निर्माण होते. यश म्हणजे केवळ पद, पैसा, प्रतिष्ठा नव्हे. आत्मविश्वास, आत्मसमाधान आणि समाजात सकारात्मक बदल घडवणं हेच खरं यश आहे. मनात तसे जनात व्यक्तीचे अंतर्मन आणि समाज यांचे परस्परसंबंध लेखक अत्यंत सुक्ष्मतेने उलगडतो. विचारांचे प्रतिबिंब समाजात उमटले आणि समाजातील प्रवृत्ती व्यक्तीच्या मनावर परिणाम करतात. आत्मपरिवर्तनातून समाजपरिवर्तन शक्य आहे हा तत्वज्ञानात्मक निष्कर्ष म्हणूनच येथे मांडला आहे. पैसा हरवला तर परत मिळू शकतो, पण मानभंग झाल्यावर मन तुटत. शब्दांच्या धावांनी जखम खोलवर बसते, मान-सन्मान हरवला की आत्मा रडते. मान-सन्मान हा मानवी जीवनाचा अत्यंत संवेदनशील पैलू आहे. लेखक मानभंगाच्या वेदनेचे वास्तववादी चित्रण करतो. आर्थिक नुकसान भरून निघू शकते.

मुल्यमापन -

लेखकाने एका संघर्षाची वाटचाल या पुस्तकामध्ये वापरलेली भाषा अत्यंत सोपी, सहज आणि प्रभावी आहे. कोणतेही अवघड किंवा क्लीष्ट शब्द न वापरता लेखकाने आपले विचार व अनुभव थेट वाचकांपर्यंत पोहोचवले आहेत. त्यामुळे हे पुस्तक सर्वसामान्य वाचकांनाही सहज समजते. कथाकथनाची शैली उत्कृष्ट असून ती वाचकाला सुरुवातीपासून शेवटपर्यंत खिळवून ठेवते. प्रत्येक प्रसंग क्रमशः उलगडत जातो. आणि संघर्षातून यशाकडे जाणारी वाट स्पष्टपणे मांडली जाते. पुस्तकाची गती सुरुवातीला थोडी मंद वाटते; परंतु ही मंद गती कथानकाची खोली समजून घेण्यासाठी आवश्यक आहे. संघर्षातील बारकावे, पात्रांच्या भावना आणि त्यामागील परिस्थिती लेखकाने अत्यंत संवेदनशीलतेने मांडली आहे.

व्यक्तीगत मत-

एका संघर्षाची वाटचाल हे पुस्तक वाचणे माझ्यासाठी प्रबोधनात्मक आणि भावनिक जीवनाकडे अनुभव ठरले. या पुस्तकाने मला जीवनाकडे पाहण्याचा दृष्टिकोन अधिक व्यापक केला. जीवनात येणाऱ्या अडचणी, अपयश आणि संकटे ही तात्पुरती असतात; मात्र त्यांना सामोरे जाण्याची तयारी आणि चिकाटी असेल तर यश नक्कीच मिळते, हा महत्त्वाचा धडा या पुस्तकातून मला मिळाला. या पुस्तकातून मला जीवनातील संघर्षाचे महत्व, आत्मविश्वास परिश्रम आणि संयम यांचे खरे मुल्य समजले. लेखकाने स्वतःच्या अनुभवांतून किंवा कथानकातून दिलेले संदेश केवळ उपदेशात्मक न वाटता प्रत्यक्ष जीवनाशी जोडलेले आहेत. त्यामुळे वाचक स्वतःलाच या संघर्षात पाहतो. हे पुस्तक वाचताना अनेक वेळा मन हेलावते. तर कधी प्रेरणा मिळते. विशेषतः तरुण वाचकांसाठी हे पुस्तक मार्गदर्शक ठरू शकते.

निष्कर्ष -

बदल स्वीकारणारा काळाशी चालतो, जो थांबतो, तो मागेच राहतो, संघर्षातून यशाची वाट खुलते, हेच जीवनाचं खरं सत्य सांगतं. एका संघर्षाची वाटचाल हे पुस्तक संघर्षातून घडलेल्या व्यक्तिमत्त्वाचे वैचारिक आत्मकथन आहे. हे पुस्तक केवळ प्रेरणा देत नाही, तर वाचकाला अंतर्मुख करते. संघर्ष टाळता येत नाही, पण त्यातून घडणारी वाटचाल जीवनाला अर्थ देते हा संदेश हे पुस्तक प्रभावीपणे देते. हे पुस्तक विद्यार्थी, तरुण पिढी, स्पर्धा परीक्षांची तयारी करणारे तसेच जीवनात संघर्ष करणारे सर्व वाचकवर्ग यांच्यासाठी नक्कीच उपयुक्त ठरेल. प्रेरणा, आत्मविश्वास आणि सकारात्मक दृष्टीकोन शोधणाऱ्या प्रत्येकाने हे पुस्तक आवर्जून वाचावे. परिस्थिती माणसाला मोडत नाही, तर घडवते. जो संघर्षाला घाबरत नाही शिक्षणाला धरून राहतो आणि संधीचा योग्य वापर करतो. त्याच्यासाठी यश नक्कीच दाराशी येत. म्हणूनच एक संघर्षाची वाटचाल हे पुस्तक प्रभावी ठरते.



स्त्री सक्षमीकरणाची वाटचाल आणि वास्तव

‘स्त्री सक्षमीकरणाची वाटचाल आणि वास्तव’ हे पुस्तक डॉ. वर्षा गंगणे यांनी लिहले आहे. या पुस्तकाचे परीक्षण खालील मुद्द्यांच्या आधारे दिले आहे.

परिचय -

स्त्री सक्षमीकरणाची वाटचाल आणि वास्तव हे पुस्तक प्रा. डॉ. वर्षा गंगणे यांनी स्त्री सक्षमीकरण या विषयावर खूप सुंदर उल्लेखनीय प्रकाश टाकणारे महत्वाचे संदर्भात्मक साधन आहे. त्या पुस्तकामध्ये त्यांनी भारतीय समाजातील स्त्रियांची ऐतिहासिक पार्श्वभूमी आणि वर्तमान स्थितीचा वेध यामध्ये घेतला आहे.

या पुस्तकामध्ये मुख्य विषय स्त्री स्वातंत्र्याचा उत्कृष्ट प्रकारे उहापोह केलेला आहे.

सारांश -

या पुस्तकामध्ये त्यांनी स्त्री सक्षमीकरणाचा प्रवास टप्प्याटप्प्याने मांडला आहे.

प्राचीन काळातील स्त्रियांचे स्थान, मध्ययुगीन काळातील न्हास आणि आधुनिक काळातील प्रगती यांचा यात समावेश आहे. लेखिकेने शिक्षण, आरोग्य, राजकारण आणि आर्थिक स्वातंत्र्य या चार प्रमुख स्तंभांवर आधारित स्त्री सक्षमीकरणाचे विवेचन केले आहे. स्त्रियांसाठीचे कायदे, शासकीय योजना आणि प्रत्यक्ष अंमलबजावणीतील अडथळे यांचाही सविस्तर आढावा यात घेण्यात आलेला आहे.

स्त्री हे स्वातंत्र्याचे स्वरूप असून तिला लक्षात घेण्यासाठी स्वातंत्र्याचा अर्थ लक्षात घेणे. अति आवश्यक आहे. लेखिकेने स्त्री स्वातंत्र्यता हा विषय या भारतामध्ये खूप लक्षात घेण्यासारखा आहे. लेखिकेने हा विषय स्त्रियांना स्वातंत्र्यता मिळायला हवी हा विषय अतिशय सुंदरपणे मांडले आहे.

मूल्यमापन -

पुस्तकाचे मुख्य वैशिष्ट्य म्हणजे सक्षमीकरणाचे ‘वास्तव’ मांडणे. लेखिकेने वापरलेली भाषा ही मराठी आहे जी आपल्याला अतिशय सोप्या पद्धतीने वाचता येते. आणि त्यांची कथाकथनाची शैलीसुद्धा उत्कृष्ट आहे. पुस्तकाची गती खूप जलद वाटली तरी त्यातील भावना मात्र

► कु. राणी रघुनाथराव शिवणकर
बी.एस्सी. भाग १

आपल्याला स्पष्टपणे प्रभावी ठरते.

व्यक्तिगत मत -

माझ्या मते, हे पुस्तक वाचणे माझ्यासाठी आनंदी अनुभव ठरले. यातून मला जीवनातील घडे व सिध्दांत समजले व स्त्रियांना जगामध्ये काय काय उपभोगावे ते देखील समजले. हे पुस्तक केवळ स्त्रियांनीच नाही तर पुरुषांनीही वाचणे गरजेचे आहे. स्त्रियांच्या समस्यांकडे पाहण्याचा एक नवा दृष्टिकोन हे पुस्तक देते. विशेषतः ‘ग्रामीण भागातील स्त्री सक्षमीकरण’ हा भाग अत्यंत संवेदनशीलतेने हाताळला आहे. लेखिकेची तटस्थ वृत्ती आणि सखोल अभ्यास प्रत्येक प्रकरणात दिसून येतो.

निष्कर्ष -

‘स्त्री सक्षमीकरणाची वाटचाल आणि वास्तव’ हे पुस्तक म्हणजे स्त्री प्रश्नांचा केवळ उहापोह नसून तो एक सामाजिक आरसा आहे. सक्षमीकरणाची वाटचाल सकारात्मक असली, तरी ‘वास्तव’ अजूनही संघर्षाचे आहे, हाच संदेश हे पुस्तक देते. विद्यार्थी, संशोधक आणि सामाजिक कार्यकर्त्यांसाठी हे मार्गदर्शक ग्रंथ ठरेल यामध्ये शंका नाही.



शिक्षणातील कृत्रिम बुद्धिमत्ता

कृत्रिम बुद्धिमत्ता (Artificial intelligence-AI) ही आधुनिक तंत्रज्ञानाची एक महत्वाची आणि वेगाने विकसित होणारी शाखा आहे. मानवी बुद्धिमत्तेप्रमाणे विचार करणे, अनुभवातून शिकणे. समस्या सोडवणे आणि निर्णय घेणे या क्षमतांनी युक्त संगणक प्रणाली म्हणजे कृत्रिम बुद्धिमत्ता होय. आजच्या डिजिटल युगात AI चा प्रभाव जीवनाच्या विविध क्षेत्रांवर दिसून येतो आणि शिक्षण क्षेत्र याला अपवाद नाही. शिक्षण व्यवस्थेत AI मुळे आमूलाग्र बदल घडून येत असून अध्यापन व अध्ययन प्रक्रिया अधिक प्रभावी आणि सुलभ होत नाही.

शिक्षण क्षेत्रातील AI चा सर्वात मोठा फायदा म्हणजे वैयक्तिक शिक्षण पद्धती. प्रत्येक विद्यार्थ्याची बुद्धिमत्ता, शिकण्याची गती, आवड-निवड. आणि क्षमता वेगवेगळी असते. AI आधारित प्रणाली विद्यार्थ्यांच्या कामगिरीचे विश्लेषण करून त्यांना त्यांच्या गरजेनुसार अभ्यास साहित्य, सराव प्रश्न आणि मार्गदर्शन पुरवते. त्यामुळे विद्यार्थी स्वतःच्या क्षमतेनुसार शिकू शकतात आणि आत्मविश्वास वाढतो.

AI मुळे शिक्षकांचे कामही आणि विद्यार्थ्यांचे शिकणेही सोपे झाले आहे. शिक्षकांना अध्यापनावर आणि विद्यार्थ्यांच्या सर्वांगीण विकासावर अधिक लक्ष केंद्रित करता येते. तसेच ऑनलाईन शिक्षण, आभासी वर्गखोल्या आणि

► कु. साक्षी श्रीकृष्ण जिचकार
बी.एससी. भाग ३

शैक्षणिक चॅटबॉट्समुळे विद्यार्थ्यांना कधीही कुठेही शिक्षण घेणे शक्य झाले आहे.

प्रोजेक्ट, परीक्षेची तयारी, करिअर मार्गदर्शन यासाठी AI आहे मात्र अत्यंत उपयुक्त ठरत आहे. AI चा वापर करताना काही अडचणीही आहेत. माहिती सुरक्षेचे धोके, तंत्रज्ञानावर वाढते अवलंबित्व आणि मानवी संवादाचा अभाव ही प्रमुख आव्हाने आहेत. त्यामुळे ख चा वापर मर्यादित व जबाबदारीने करणे आवश्यक आहे.

एकंदरीत, योग्य नियोजन आणि समतोल वापर केल्यास कृत्रिम बुद्धिमत्ता शिक्षण क्षेत्रात घडवून आणू शकते. AI मूळे शिक्षण अधिक प्रभावी, आधुनिक, सुलभ आणि विद्यार्थी केंद्रित क्रांती बनू शकते. ज्याचा फायदा समाजाच्या प्रगतीसाठी नक्कीच होईल.





शिक्षण

शिक्षण हे मानवी जीवनातील सर्वात मोठे वरदान आहे. शिक्षण माणसाला खऱ्या अर्थाने माणूस बनवण्याचे काम करते. शिक्षणामुळे अज्ञान दूर होते व ज्ञानाचा प्रकाश पडतो. त्यामुळे जीवनाला योग्य दिशा मिळते. शिक्षण माणसाला स्वावलंबी बनवते. सुशिक्षित व्यक्ति स्वतःच्या पायावर उभी राहू शकते. पण कुटुंब, समाज आणि देशाच्या प्रगतीत हातभार लावते. शिक्षणामुळे व्यक्तीमध्ये चांगले विचार, शिस्त, प्रामाणिकपणा, आणि नैतिक मूल्य रुजतात. आजच्या स्पर्धेच्या युगात प्रगति करण्यासाठी शिक्षण अत्यावश्यक आहे. शिक्षणामुळे नवीन संधी उपलब्ध होतात आणि व्यक्तीचे जीवनमान सुधारते. तंत्रज्ञान वैद्यकीय, अभियांत्रिकी अशा अनेक क्षेत्रांत प्रगती करण्यासाठी शिक्षण खूप महत्वाचे आहे. शिक्षण हे केवळ नोकरी मिळवण्यासाठी नसते, तर चांगले जीवन जगण्यासाठी असते. शिक्षणामुळे माणसाचा दृष्टीकोन व्यापक होतो. तो योग्य-अयोग्य यातील फरक ओळखू शकतो शिक्षण समाजातील भेदभाव गैरसमज दूर करण्यास मदत करते. मुलीचे शिक्षणही तितकेच गरजेचे आहे.

एक सुशिक्षित स्त्री म्हणजे संपूर्ण सुशिक्षित कुटुंब असे म्हटले जाते. त्यामुळे प्रत्येक मुला-मुलीला समान शिक्षणाची संधी मिळणे गरजेचे आहे. सरकारनेही सर्वांसाठी वाचनालये, शिक्षणाच्या अनेक योजना राबवल्या आहेत. शाळा, वाचनालये, शिष्यवृत्ती यांसारख्या सुविधांमुळे शिक्षण अधिक सोपे होते. तरीही पालक आणि शिक्षकांनी मुलांना

► कु. प्रणिता र. सहारे
बी.एस्सी. १

शिक्षणाचे महत्व समजावून सांगणे आवश्यक आहे. अखेर शिक्षण हे जीवन बदलणारे शक्तीशाली साधन आहे. शिक्षणाशिवाय प्रगती अशक्य आहे म्हणून प्रत्येकाने शिक्षण घ्यावे आणि इतरांनाही शिक्षणासाठी प्रेरित करावे. शिक्षण हे यशाचे खरे साधन आहे

शिक्षण हे माणसाच्या जीवनातील सर्वात मौल्यवान साधन आहे. माणूस जन्माला येताना अज्ञानी असतो, पण शिक्षणामुळे तो ज्ञानी आणि सक्षम बनतो. परीक्षण माणसाला विचार करायला, समजून घ्यायला, योग्य निर्णय घ्यायला शिकवते. पूर्वी शिक्षणाची साधने मर्यादित होती, आज मात्र शाळा, महाविद्यालये, इंटरनेट, ग्रंथालये अशा अनेक माध्यमांमुळे शिक्षण सोपे झाले आहे. आधुनिक काळात परीक्षणाशिवाय कोणत्याही क्षेत्रात प्रगती करणे कठीण आहे. त्यामुळे प्रत्येकाने शिक्षणाचे महत्व ओळखले पाहिजे.

“शिक्षणाने मिळतो विचारांना नवा आधार,
यशाची शिखरे सर करण्याचा तोच खरा मार्ग,
कष्ट करा, फळ, आपोआप मिळेल ही
आहे ज्ञानाची नीती,
धैर्य आणि शिक्षणानेच संपते पराभवाची भिती”



शिक्षणामुळे माणसात, आत्मविश्वास निर्माण होतो. सुशिक्षित व्यक्ती समाजात मानाने जगू शकते. शिक्षण माणसाला स्वाभिमानाची, कष्टाळू आणि जबाबदार बनवते. तसेच शिक्षणामुळे, व्यक्तीला चांगली नोकरी, व्यवसाय आणि सन्मान मिळतो. समाजाच्या प्रगतीसाठी शिक्षण अत्यंत आवश्यक आहे ज्या समाजात लोक सुशिक्षित असतात तो समाज अधिक विकसित असतो. शिक्षणामुळे अंधश्रद्धा, वाईट प्रथा आणि चुकिच्या परंपरा दूर होतात. लोकांमध्ये वैज्ञानिक दृष्टीकोन निर्माण होतात. मुलांसोबतच मुलीनी शिक्षण घेणे खूप महत्वाचे आहे. सुशिक्षित मुलगी पुढील पिढी घडवते. त्यामुळे मुलगी शिकली प्रगती झाली असे म्हणतात. शिक्षणामुळे स्त्रियांना स्वातंत्र्य, सम्मान आणि आत्मनिर्भरता मिळते. शिक्षण हे केवळ परीक्षा पास होण्यासाठी नसते, तर चांगला माणूस बनवण्यासाठी असते. खरे शिक्षण तेच, जे माणसाला प्रामाणिकपणा, नम्रता आणि मानवता शिकवते म्हणून शिक्षण ही अशी संपत्ती आहे, जी कोणीही हिरावून घेऊ शकत नाही. शिक्षणामुळे आपले भविष्य सुशिक्षित बनते. शिका, घडा आणि यशस्वी व्हा हाच खरा मार्ग आहे.

झेप एवढी उंच घ्या की आभाळ ठेंगणे वाटावे, शिक्षणाच्या बळावर आपले भविष्य आपणच घडवावे. पुस्तकाच्या पानांत लपली आहे यशाची गुरुकिल्ली, शिका आणि संघटित व्हा हीच आहे प्रगतीची पहिली पायरी.

शिक्षण ही अशी प्रक्रिया आहे ज्याद्वारे माणूस ज्ञान, कौशल्य मुल्ये, आणि समज प्राप्त करतो. शिक्षणामुळे व्यक्तीचा मानसिक, सामाजीक आणि भावनिक विकास होतो. यशस्वी आणि अर्थपूर्ण जीवनाचा पाया म्हणजे शिक्षणाची सुरुवात घरातून होते, आणि शाळा महाविद्यालये तसेच संपूर्ण आयुष्यभर सुरु राहते. सुशिक्षित व्यक्ती योग्य विचार करू शकते, चांगले निर्णय होऊ शकते आणि समाजासाठी सकारात्मक योगदान देऊ शकते. शिक्षणामुळे चांगल्या नोकऱ्या, उत्तम जीवनमान आणि सामाजीक प्रतिष्ठा मिळविण्याच्या संधी उपलब्ध होतात. शिक्षण फक्त पुस्तके आणि परीक्षा यापुरते मर्यादित नाही. ते शिस्त, चांगले आचारविचार संघभावना आणि नैतिक मुल्ये शिकवते.

शिक्षणामुळे माणूस जबाबदार नागरिक बनतो.

शिक्षणाच्या माध्यमातून आपण गरिबी, बेरोजगारी आणि असमानता यांसारख्या समस्यांवर मात करू शकतो. म्हणूनच प्रत्येक मुलाला शिक्षणाचा हक्क मिळायला हवा. पालक, शिक्षक आणि समाज यांनी एकत्र येऊन शिक्षण सर्वांसाठी उपलब्ध करणे आवश्यक आहे. मजबूत शिक्षण व्यवस्था मजबूत राष्ट्र घडते. शेवटी असे म्हणतात की शिक्षण हा अज्ञानाचा अंधार दूर करणारा प्रकाश आहे. ते आपले भविष्य घडवते आणि जगाला राहण्यासाठी अधिक चांगले स्थान बनवते. म्हणूनच शिक्षण हे जीवनाचे खरे धन मानले जाते. शिक्षण हे केवळ ज्ञान मिळवण्याचे माध्यम नाही, तर समाज बदलण्याचे प्रभावी साधन आहे. माणसाच्या विचारसरणीत बदल घडवण्याचे काम शिक्षण करते. शिक्षणामुळे माणूस अज्ञानातून ज्ञानाकडे, अंधारातून, प्रकाशाकडे वाटचाल करतो. आजच्या काळात जग झपाट्याने बदलत आहे. नवनवीन शोध, तंत्रज्ञान आणि कल्पना यामुळे जग अधिक आधुनिक बनले आहे. या बदलत्या जगाशी जुळवून घेण्यासाठी शिक्षण अत्यावश्यक आहे. शिक्षणामुळे व्यक्ती नवनवीन गोष्टी शिकतो, आपली कौशल्य वाढवतो आणि जीवनात पुढे जातो. ग्रामीण भागात शिक्षणाचे महत्त्व आणखी जास्त आहे. शिक्षणामुळे लोकांमध्ये जागरूकता निर्माण होते त्यामुळे समाज आरोग्य, स्वच्छता, पर्यावरण, महिला सक्षमीकरण अशा अनेक विषयाबाबत लोक अधिक सुजाण होतात. शिक्षणामुळे गरिबी आणि अज्ञान यांचा दुष्टचक्र तुटण्यास मदत होते.

शरीराला श्रमाकडे, बुद्धीला मनाकडे आणि हृदयाला भावनेकडे वळविणे म्हणजे शिक्षण होय.





रसायनशास्त्र आणि पदार्थ विज्ञानात कृत्रिम बुद्धिमत्ता

► कु. जानवी अनिल काळे
बी.एससी. १

विज्ञान आणि तंत्रज्ञानाच्या प्रगतीमुळे आज रसायनशास्त्र पदार्थ विज्ञान (Material Science) हे क्षेत्र वेगाने विकसित होत आहे. या प्रगतीला अधिक गती देण्याचे काम कृत्रिम बुद्धिमत्ता (Artificial Intelligence - AI) करत आहे. संशोधन, नवीन पदार्थांची निर्मिती आणि औद्योगिक प्रक्रियांमध्ये AI मुळे क्रांती घडून येत आहे.

रसायनशास्त्रात प्रयोग करताना मोठ्या प्रमाणावर डेटा तयार होतो. या डेटाचे विश्लेषण करणे वेळखाऊ आणि गुंतागुंतीचे असते. AI प्रणाली या डेटाचा अभ्यास करून रासायनिक अभिक्रियांचे परिणाम, अणूंची रचना आणि संयुगांचे गुणधर्म अचूकपणे भाकीत करू शकतात, त्यामुळे प्रयोगांची संख्या कमी होऊन वेळ, खर्च आणि संसाधनांची बचत होते. नवीन औषधांची निर्मिती (Drug Discovery) हे AI चे महत्वाचे क्षेत्र आहे. AI च्या मदतीने कोणते रसायन, औषध म्हणून प्रभावी ठरेल हे आधीच अंदाज करता येतो. त्यामुळे रोगांवरील उपचार अधिक जलद आणि सुरक्षित पद्धतीने विकसित होतात. कर्करोग, संसर्गजन्य आजार यांसारख्या गंभीर रोगांवर औषधे शोधण्यात AI उपयुक्त ठरत आहे.

पदार्थ विज्ञानात AI चा वापर करून नवीन आणि मजबूत पदार्थ तयार केले जात आहेत. उदाहरणार्थ, हलके पण टिकाऊ धातू, उष्णतारोधक पदार्थ, सुपरकंडक्टर आणि नैनोमटेरियल्स यांचा अभ्यास AI द्वारे केला जातो. यामुळे अंतराळ विज्ञान, वाहन उद्योग, बांधकाम आणि इलेक्ट्रॉनिक्स क्षेत्रात मोठी प्रगती होत आहे.

याशिवाय पर्यावरणपूरक रसायने, प्लास्टिकला पर्याय असलेले पदार्थ आणि नवीकरणीय ऊर्जा साठवणासाठी बॅटरी साहित्य विकसित करण्यात AI महत्वाची भूमिका बजावत आहे. त्यामुळे प्रदूषण कमी होऊन शाश्वत विकासाला चालना मिळते.

थोडक्यात सांगायचे झाले तर, AI for Betterment of Humanity या संकल्पनेनुसार रसायनशास्त्र आणि पदार्थ विज्ञानात AI चा योग्य वापर केल्यास मानवाच्या जीवनमानात सुधारणा कार्यक्षम आणि समाजोपयोगी बनवण्यासाठी AI ही सुधारणा होईल. विज्ञान अधिक सुरक्षित, एक प्रभावी शक्ती ठरत आहे.

रसायनशास्त्रातील बुद्धिमान बदल

अणू-रेणूंच्या सूक्ष्म जगात,
ज्ञान शोधते नवी वाट,
डेटाच्या सागरात डोकावते,
AI उघडते विज्ञानाची दारे खास.

प्रयोगशाळेत शांत उभी,
संगणकाची बुद्धी चालते,
अभिक्रियांचे गूढ कोडे,
क्षणातच ती सोडवते.

नव्या औषधांचा शोध घ्यायला,
रोगांशी लढण्याची ताकद वाढवायला,
AI देते दिशा योग्य,
मानवतेसाठी बनते सहयोगी.

मजबूत, हलके नवे पदार्थ,
भविष्यासाठी घडतात साथ,
नैनो कण, ऊर्जा साठवण,
विज्ञानाला मिळते नवे बळ.

पर्यावरणास अनुकूल रसायने,
प्रदूषण कमी करण्याची योजना,
AI मुळे शक्य होत आहे,
शाश्वत विकासाची साधना.

मानवबुद्धी आणि यंत्रबुद्धीचा संगम,
घडवतो विज्ञानाचा नवा क्रम,
AI for Betterment of Humanity
हेच आहे प्रगतीचे खरे स्वप्न...

► कु. जानवी अनिल काळे
बी.एससी. १

INTERNSHIP & PLACEMENT CELL



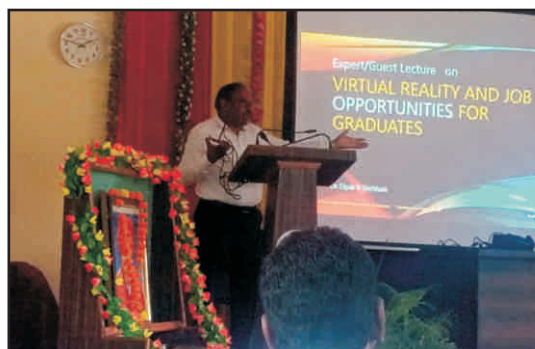
Placement Drive Organised by Placement Cell -2025



One Day Workshop NATS Organised by Placement Cell



Felicitation by the gracious hands of Principal Dr. P.R. Wadnerkar to Dr. Shirbhat



Guest Lecture on Virtual Reality and Job Opportunities for Graduates by Dr. Shirbhat

WOMEN'S CELL ACTIVITIES



Safety Awareness Program for Girls Students



Soft Skill Training Program organised for B. Sc Final year Girls students



Organised Cultural Program on the occasion of Birth Anniversary of Savitribai Phule



Health Check-up Camp at Jawala

ACTIVITIES, AWARD & ACHIEVEMENTS (JUNIOR COLLEGE)



Cleanliness drive conducted by ECO club



Copy Mukta Rally



Cultural Program on the Occasion of Women's day



Essay Writing Competition on the Occasion of Sanvidhan Din



Guidance of Rural Hospital Doctor on the Occasion of Aids day



Rangoli Competition



Seminar on Stress Free Exam



Welcome to FYJC Students

AI in Biology and Health Care

► **Ku. Janvi Anil Kale**

B.Sc.1

Artificial Intelligence (AI) is transforming biology and health care by helping scientists, doctors and researchers understand life processes and treat diseases more effectively. AI system can analyze huge amounts of medical and biological data much faster and more accurately than humans.

In biology, AI is used in gene sequencing, Studying proteins, and understanding how Cells function. It helps researchers predict the structure of proteins, discover how diseases spread, and design new medicines. AI speeds up drug discovery by testing millions of chemical combinations on computes before actual laboratory experiments.

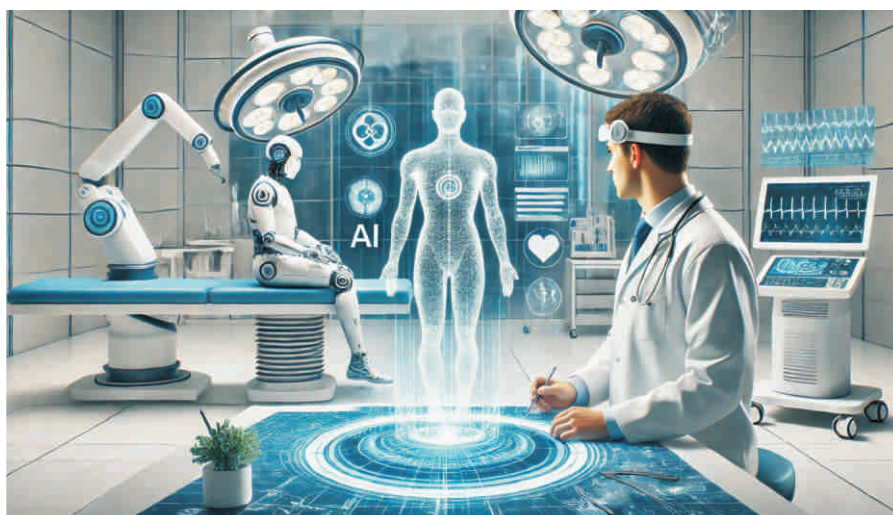
In health care, AI Supports doctors in diagnosis and treatment. For example, AI can read X-rays, CT scans and MRIs to detect problems like cancer, Fractures of brain disorders at an early stage. AI-powered tools also monitor patients heart rate, blood pressure and sugar levels, helping in timely medical intervention.

AI is widely used in personalized medicine. It studies a patient's history, genetics and lifestyle to suggest the most suitable treatment. Virtual assistants and chatbots help patients book appointments, get reminders to take medicines, and receive basic medical guidance.

During disease outbreaks, AI helps track infections, predict high - risk areas and plan preventive measures. Robotic Surgery guided by AI allows more precise operations and faster recovery.

However, proper use of AI requires data Privacy, ethical guidelines and human supervision. AI should assist doctors, of replace them.

In conclusion, AI is a powerful tool that improves research, diagnosis and patient care. It has great potential to make health services faster, safer and accessible to everyone.





AI in Chemistry and Material Science

► **Swapnil Pramodrao Deshmukh**
B.Sc. 1

In Silent Woods where shadows creep and ancient oceans full to sleep. A new invisible watchman stands with data streams instead of hands no heart of flesh but mind of light scanning the first day and night.

From Satellite in orbit high. It reads the tears of azure haze or Forest fire A sky. Detecting haze or forest fire. A scaring, swift, electronic wire. It counts the whales in oceans deep and guards the paths.

Where illegal axe seeks silent tree. AI hears the quiet plea. It sorts the songs of bird and beast. From the smallest to the least. In pixels sounds, and the least it brings us vital, urgent news. A tool to tell a digital guide. with planet earth it takes its side. Not just to count, but to conserve the living world we must preserve.

Another important application spectral analysis. AI helps interpreting NMR IR and mass Spectra to identify chemical Compound accurately.

AI is also used in reaction prediction, where it predicts reaction production yield's, and suitable conditions like temperature and catalysts.

AI is very used cells it helps improve battery life efficiency and safety. AI mode can also predict material properties like hardness, melting points, band gap, and corrosion resistance before the material is actually made. In nanotechnology. AI help design nanotechnology with clear Size and shape for use in electronics medicine, and sensors.

In analytical chemistry AI assists interpretation of spectra in the Such as IR. NMR, and mass spectra making compound identification faster.

Advantage of AI -

- Saves time and cost.
- Improves accuracy and efficiency
- Reduces number of experiments.
- Helps in Sustainable and green research.

Role of AI in chemistry. -

AI is widely used in molecular modelling and drug discovery. It helps scientists predict the structure and molecules and properties of before performing Laboratory experiments. This reduces time cost and chemical. This waste AI also useful in chemical reaction detection products, suitable catalysis, and reaction condition.

AI analytical chemistry. AI assist in the also Supports green chemistry by designing environmentally and friendly processes with minimum waste and energy consumption.

AI (Artificial intelligence) use computers and machine learning to analysis data predict results and make decision like humans.

AI in Arts & Creativity



The future of creativity lies in the synergy between human ingenuity and artificial intelligence.

Artificial intelligence (AI) is transforming the landscape of arts and creativity offering new tools and method for artistic expression. AI's ability to generate art, music and literature is one of the most visible impacts: AI algorithm analyze vast datasets of existing artworks. Music compositions, and literary works to identify patterns, styles, and structures. This analysis enables AI to Create new piece that reflect these learned patterns.

"Creativity is seeing what others see and thinking what no one else ever thought."

AI assists artists in various ways, from automating repetitive tasks to generating novel ideas. for example, AI can help in the initial stages of a project by Suggesting variations or exploring different styles. It can also be used to create entire artworks or compositions, often in collaboration with human artists. This Collaboration between humans and machines fosters innovation and challenges traditional notions of authorship and artistic creation.

"Collaboration with AI can speed up the process of art production, allowing for greater productivity and create Output."

AI is not here to replace artists, but to judgement their abilities. Says a prominent AI researcher in the arts. AI-powered tools

► **Ku. Vaishnavi Sunil Bhoyar**
B.Sc.1

provide artists with new ways to explore their Creativity, experiment with different style and overcome creative blocks. The technology also enhances art experiences by personalizing them. AI can adapt to Individual preferences, creating unique interactions and making art more accessible and engaging.

"The future of creativity isn't AI replacing art. It's AI Supporting the parts that Don't deserve your creative energy".

Moreover, AI is being used to preserve and restore artworks, analyze their historical context, and create interactive exhibitions. "AI allows us to See art in new ways, to understand it's complexities. and appreciate it's beauty," says an art historian. This integration of AI in the arts is not just about creating new forms of art but also about transforming how we experience and interact with art.

"Artificial intelligence is not a substitute for human Intelligence: It is a tool to amplify human creativity and ingenuity"

In essence, AI in arts and creativity expands creative. possibilities and explores the boundaries of human and machines collaboration. It is a field full of potential driving innovation and reshaping the future of art.

"The task that generative AI has been most success-ful at is lowering our expectations both of the things we read and of the things we read and of ourselves when we write anything for others to read. It is a fundamentally dehumanizing technology because it treats us as less than what we are: creators and apprehenders of meaning. It reduces the amount of intention in the world"!



AI in Business: Where Intelligence Meets Innovation

► **Ku. Krushnai Avinash Takale**
B.Sc. 1

"Machines that learn, systems that see,
Helping businesses grow and be free.
Not to replace the human mind,
But to make decisions smart and kind."

Artificial Intelligence (AI) is transforming the modern business world. Today, companies use AI to analyze data, improve services, make better decisions. AI helps businesses become faster, smarter and more efficient. It plays an important role in shaping the future of the trade industry.

Uses of AI in Business:

- Chatbots for customer service.
- Personalized marketing and advertisements.
- Fraud detection in banking.
- Smart hiring in human resources.
- Supply chain and inventory management.

"AI is not the future of business, it is the present."

AI helps businesses save time, reduce and improve costs, increase accuracy, customer satisfaction. It supports decision-making and boosts productivity.

"With human vision and AI power, Business grows stronger every hour."



AI in Education

► **Ku. Anshita Mohan Mohod**
B.Sc. 1

Artificial Intelligence (AI) is changing the students learning today. Smart learning

AI helps teachers and students in many ways. It can explain difficult topics in an easy manner. Learning made simple. With AI tools, students can learn at their own speed, Slow learners get extra help and fast learners get more challenges. Everyone learns differently. AI also helps teachers by checking homework and giving quick feedback. Time-saving technology. Online classes, smart apps, and learning games use AI to make studies more games interesting. Fun with learning. However, AI should be used carefully. Teachers are still very important for guidance and values. Technology with care. In the future, AI will play a big role in education and help students learn better future of education.

Quotes

► **Ku. Vaishnavi Sunil Bhoyar**
11th Science

AI is a fool, and like any tool, it can be used to create art in ways we never imagined.

The most exciting aspect of AI in art is its potential to democratize creativity.

AI can help artists break free from their own limitations and explore new styles.

Art and AI are a match made in the digital world, sparking innovation and wonder.

AI's capacity to generate unique art pieces is a testament to its creative potential!

AI art challenges us to reconsider the definition of authorship and artistic value.

In the future, we'll see a seamless blend of human and AI creativity.

Art is a mirror, reflecting our own creativity and pushing us to think differently.

The fusion of AI and art is a journey into the unknown, full of endless possibilities."



Artificial Intelligence (AI) in Business

► Ku. Diksha Jagdish Karde
B.Sc.1

1. Introduction to AI in Business -

Artificial Intelligence (AI) refers to complex systems that can perform tasks that normally require human intelligence. These tasks include learning from data, understanding language, and even predicting future outcomes. In business, AI is used to improve efficiency, reduce costs, enhance customer experience, and support better decision making. Companies across industries such as retail, finance, healthcare, manufacturing and marketing are adopting AI to stay competitive in a fast changing digital World.

2. Why Businesses Use AI -

Businesses adopt AI because it provides several important advantages:

- Speed - AI process information much faster than humans.
- Accuracy - Reduces human error in calculations and predictions.
- Cost Reduction - Automation lowers labor and operational costs.
- Better Decisions - Data driven insights improve planning.
- Scalability : AI systems can handle growing Workloads easily.

Because of these benefits, AI is used by small startups, large corporations, and even governments.

3. Key Types of AI Used in Business

a) Machine Learning (ML) -

Machine learning allows systems to learn from data and improve over time without being explicitly programmed.

Business uses:

- Sales forecasting
- Customer behavior analysis
- Fraud detection
- Product recommendations.

Example: Online stores recommending products based on past purchases.

b) Natural Language Processing (NLP) :

NLP enables computers to understand and respond to human language.

Business uses :

- Chatbots and virtual assistants
- Customer feedback analysis
- Email filtering
- Voice assistants.

Example: Customer service chatbots that answer questions 24/7

c) Computer Vision:

Computer vision allows machines to interpret images and videos.

Business uses -

- Facial recognition
- Security and surveillance
- Quality control in factories
- Medical image analysis.

Example: Retail stores using cameras to track customers movement.

d) Robotic Process Automation (RPA) -

RPA uses AI to automate repetitive, rule-based tasks.

Business uses -

- Data entry
- Invoice processing
- Payroll management
- Report generation.

Example: Automatically processing thousands of invoices in accounting.

4) Applications of AI in Different Business areas.

a) Marketing and sales:

AI helps businesses understand customers better and target them more effectively.

Uses include:

- Personalized advertisements
- Customer segmentation
- Sales prediction
- Chatbots for lead generation

Result: Higher customer engagement and increased sales.

b) Customer Service-

AI-powered chatbots and virtual assistants provide instant support.

Benefits:

- 24/7 availability
- Fastest response
- Reduced Workload for human agents.
- Improved customer satisfaction.

Example - AI answering FAQs before passing Complex issues to humans.

c) Human Resources (HR) -

AI improves hiring and employee management.

Uses include:

- Resume screening
- Employee performance analysis
- Training recommendations
- Predicting employee turnover.

Result: Faster hiring and better talent management.

d) Finance and Accounting -

AI is widely used in financial operations.

Uses include:-

- Fraud detection
- Credit Scoring
- Budget forecasting
- Automated bookkeeping.

Example: Banks using AI to detect suspicious transactions.

e) Operations and supply chain -

AI helps optimize production and delivery.

Uses include:

- Demand forecasting
- Inventory management
- Route optimization
- Predictive maintenance.

Result :- Reduced Waste, faster delivery and lower costs.



5) Benefits of AI in Business : Some major benefits include:

- a. Increased productivity - Automation frees humans for creative work.
- b. Better customer experience - Personalized and faster Services
- c. Improved accuracy - Fewer mistakes in data analysis.
- d. Competitive advantage - Businesses using AI stay ahead.
- e. Data-driven decision Less guesswork, more insights.

6. Challenges and Risks of AI in Business.

Despite its benefits AI systems can be challenges.

- a) High Costs: Developing and maintaining AI systems expensive.
- b) Job Displacement - Automation may reduce the need for certain jobs. especially repetitive roles.
- c) Data Privacy and security - AI requires large amounts of Data, Which raises privacy Concerns.
- d) Bias and Ethics - If AI is trained on biased data, it can produce unfair results.
- e) Lack of Human Judgment: AI lacks emotions, creativity, and moral reasoning.

7) Ethical Use of AI in Business -

Business must use AI responsibly by.

- Protecting customer data.
- Being transparent about AI decision.
- Following laws and regulations.
- Avoiding discrimination and bias.
- Ensuring human oversight.

Ethical AI builds trust with customers and employees.

8) Future of AI in Business :-

The future of AI in business looks very promising.

- More intelligent virtual assistants
- Smarter decision. support systems
- Increased collaboration between humans and AI.
- Growth of AI-driven startups.
- Fully automated supply chains.

AI will not completely replace humans but will Work alongside them to improve business performance.

9. Conclusion: -

Artificial Intelligence is transforming the business World. It helps companies operate more efficiently make smarter decisions, and deliver better customer experiences. While AI brings challenges such as ethical Concerns and job changes, its benefits are too significant to ignore. AI is not just a technology trend it is a powerful tool shaping the future of Business. Thank you.



AI in Biology and Health Care

► Gaurav Dilip Meshram
B.Sc.1

AI in Biology and healthcare is revolutionizing the industry by leveraging algorithms, big data, and machine learning speed up drug discovery improve diagnostic in imaging (Radiology / pathology) and enable personalized treatment. key applications include de novo drug design, predicting protein structures, and optimizing clinical trial which collectively enhance patient outcomes. while reducing costs.

Key Applications of AI in Biology and Health care.

- **AI Drug Discovery and Development:** AI accelerates target identification and validations, predicts drug interactions and enables de novo molecular design to create new treatments faster.
- **Medical Imaging and Diagnosis:** AI algorithms analyze CT Scans, MRI and x-rays, to detect diseases early, enhancing accuracy in dermatology. ophthalmology and oncology.
- **Personalized Medicine:** AI models analyze genetic, environmental, and lifestyle data to tailor therapies to individual patients, particularly for cancer and rare diseases.
- **Genomics and Bioinformatics:** AI helps decode complex genetic information to identify disease related variants.
- **Clinical Workflow and Patient Care :-** AI supports clinical decision-making predicts patient risks, manages hospital re-admissions, and streamlines administrative tasks.
- **Public Health :-** AI is used to analyze large datasets for disease surveillance, such, as predicting COVID-19 trends or pediatrics asthma risks.

Techniques Used -

- **Machine Learning (ML):** Used for analyzing patterns, such as identifying, In some cases hidden patterns in patient data.
- **Deep Learning (DL):** Highly effective in image recognition for radiology and pathology.
- **Natural Language Processing (NLP) :** Used to analyze clinical notes and medical literature.

Benefits and Challenges.-

- **Benefits:** Increased diagnostic speed, improved accuracy. cost reduction in drug development, and better patient management.
- **Challenges:** Data privacy concerns, the need for high quality, diverse data, potential for algorithmic bias, and the requirement for clinical validations of AI models.



AI in Earth Science and Astronomy

► **Ku. Anushri Ganesh Tembhurne**
B.Sc.1



AI in Earth Science and Astronomy accelerates discovery by analyzing vast Complex datasets from satellites and telescopes it enhances image processing automates object classification (Stars galaxies exoplanets) and improves climate modeling disaster detection and Solar flare predictions key application include machine learning algorithms to find asteroide AI-driven aduptive optics for clearse celestial imagery and Geo AI for environmental

monitoring. As the world continues to grapple with environmental challenges such as climate change deforestation and pollution there is growing interest in how technology that is help address These issues one technology that is garnering a lot of attention is Artificial Intelligence (AI) Artificial Intelligence is not a magic bullet that can Solve all environmental problems, but it can help in several ways.

For example it can be used to analyze data from Satellites and sensors to monitor environmental conditions predict natural disasters, and detect illegal activities like deforestation and poaching Sources to provide real-time information on environmental conditions like air quality water quality and temperature. The European Space Agency is using AI to analyze Satellite data to monitor air pollution levels in cities. The system can provide detailed information on the sources of pollution levels. Another way AI is being used to help protect the environment is by predicting natural disasters. Another way AI is being used to help protect the environment is by reducing waste and optimizing energy consumption. AI can be used to optimise the routing of reduce fuel consumption or to analyze energy consumption patterns in building to identify areas where illegal hunting is taking place this information can be used to identify the perpetrators and take action to stop the activity. The world wildlife fund, is using AI to track animal activity in protected areas. The system uses AI algorithms to a analyze data from camera traps and other Sources to identify patterns that indicate illegal activity on environmental condition and predicting natural disaster. AI can help prevent environmental damage and protect human lives.

Artificial intelligence (AI) is transforming earth science and astronomy by enabling the analysis of vast, complex datasets, accelerating discoveries, and automating routine tasks Techniques such as machine learning (mL), deep learning (DL), and computer vision are employed to handle petabytescaly data from Satellites, ground-based telescopes and sensors.



AI in Chemistry & Material science

► **Ku. Gauri Prashant Mahule**
B.Sc.1

Artificial Intelligence (AI) helps scientist analyze data and make accurate Predictions. In Chemistry AI is used for drug discovery, reaction prediction and analysis of spectra like NMR & IR. In material science, AI helps discovery, reactions and predict properties such as Strength conductivity and melting point. AI reduces time, cost and number of laboratory experiment. Thus, AI makes research faster more accurate and efficient in Chemistry and Material Science.

In chemistry, AI is widely used in drug discovery molecular design. AI models can analyze compounds and predict which molecules may act as effective medicines. This saves a lot of time compared to traditional laboratory experiments.

AI is also used in reaction prediction, where it predicts reaction products, yields and Suitable conditions like temperature and catalysts. Another important application is spectral analysis. AI helps in interpreting NMR, IR and mass spectra to identify chemical compounds quickly & accurately. AI also suggesting green chemistry by suggesting Reactions that produce less waste and environmentally friendly.

AI in Material Science -

AI material Science, AI helps in the discovery of new material with specific properties Such as high strength, light weight, heat resistance, or electrical conductivity. AI is very useful cells, helps improve battery life, efficiency and safety. AI mode can also predict material properties like hardness, melting points, band gap and corrosion resistance before the materials is actually made.

In nano-technology AI helps designing nano-technology desire size and shape for use in electrons medicine and sensors.

Advantages of AI -

- Saves times and cost.
- Improves accuracy and efficiency.
- Reduces number of experiments.
- Help in sustainable and green research.

AI plays advancing by major role in advancing chemistry and material science. by accelerating discovers improving accuracy, and supporting Sustainable development. It has became an essential tool for modern Scientific research. AI (Artificial Intelligence) use computers and machine learning to analyze data, predict results and make decision like humans.

Role of AI in Chemistry -

AI is widely used in molecular modeling and drug discovery. It helps Scientists predict the structure and properties of molecules before performing laboratory experiments. This reduces time cost and chemicals waste. AI is also useful in chemical reactions prediction where it predicts reaction products, suitable catalysts and reaction conditions. In analytical chemistry, AI assists in the interpretation of spectra such as IR, NMR, and mass spectra. making compound identification faster. AI analytical chemistry, assists in the AI also supports green chemistry by designing enviroment friendly processes with minimum waste and energy consumption.



AI in Biology and Health Care

► **Ku. Dnyaneshwari Prashant Kaikade**
B.Sc.1

Artificial Intelligence (AI) is one of the most powerful technological advancements of the modern era. It refers to the ability of machines and computer Systems to Perform tasks that normally require human intelligence, such as learning, Problem-Solving decision-making and Pattern recognition. Today AI is Playing a crucial role in the betterment of humanity especially in the fields of biology and health care, where it is Saving lives improving diagnosis, and enhancing the quality of medical services.

In biology, AI has transformed the Way Scientists Study living organisms. AI tools help analyze large amounts of biological data quickly and accurately. For example, AI is widely used in genomics Study DNA sequences. It helps Scientists identify genes responsible for diseases, understand genetic disorders, and develop Personlized treatments.

AI also Supports new medicines can Compounds in a takes Short research in drug discovery traditionally, developing many years, but analyze thousands of chemical time and predict Which ones may be effective as drugs. This speeds up research and reduces costs. In addition, AI assists in studying ecosystems bio-diversity and climate change by analyzing environmental and biological data, helping scientists protect life on Earth.

AI has made health care Smarter, faster, and more efficient. One of its most important, roles is in medical diagnosis. AI-Poulered Systems can analyze X-rays, MRIs, CT Scans and blood reports with high accuracy. they help doctors detect diseases Such as Cancer , heart Problems and infections at an early stage, which increases the chances of Successful treatment.

AI is also used in robotic Surgery. Where AI-assisted Robots help Surgeon's Perform complex operation with greater Precision and less risk in hospitals helps manage patient Records predict disease outbreaks health using and monitor patient's Smart devices.

In addition, AI-Powered virtual health assistants and chatbots provide basic medical guidance Reminders, for medicines health information, especially in remote and areas where doctors are not easily available. This improves access to health care for many people.

The use of AI in Biology and health care has greatly contributed to the betterment of humanity it reduces human errors. saves time, lowers medical costs. AI helps doctors and improves focus more on Patient's while machines handle routine tasks it also supports global health. by helping Control Pandemic, improving vaccination research, and strengthening public health systems.

'The Digital Guardian'

In silent woods where shadows creep,
And ancient oceans Pull to sleep,
A new invisible watchman stands,
with data streams instead of hands.
No heart of flesh, but mind of light.
Scanning the forest, day and night.

From satellite in orbit high.
reads the tears of azure sky,
Detecting haze, or forest fire,
A soaring swift, electronic wire.
It Counts the whales in oceans deep.
And guards the paths the tigers Keep.

Where illegal axe Seeks Silent tree,
AI hears the quiet plea.
It Sorts the songs of bird and beast,
From the smallest, to the least.
In pixels, sounds, and vibrant hues.
It brings US vital, urgent news.

A tool to heal, a digital guide,
With planet Earth, it takes its side
Not just to count, but to conserve.
The living world we must preserve
In Circuit boards, a hope is born,
to wake the future's brighter morn.

► **Ku. Anju Purushottam Pachekar**
B.Sc.1

POEM

In Earth Science

If sits through the pixels of oceans blue
predicting the storm, the cyclone's due.
It watches the glaciers, a silent guard,
Tracking the ice in its swift retard.
It know the tremor before the shaking.
The subtle shifts that the plates are making
A thousand sensors, a neural net,
protecting the planet, lest we forget.

In Astronomy

It stares at the void where the nebulae spin,
classifying galaxies, where they begin
It find the planet, a distant dot,
Trapping the light, a faint small spot.
Mapping the dark matter, vast and cold
Helping the stories of cosmos unfold
No hero genius, but a tireless mind
Leaving the slowest to fall behind.

► **Ku. Anushri Ganesh Tembhurne**
B.Sc.1



Role of Artificial Intelligence in Chemistry and Material Science

► **Ku. Sakshi Shrikrishna Jichkar**
B.Sc.3

Artificial intelligence (AI) is transforming almost every field of Science, and chemistry and material Science are no exception. Traditionally, Scientific discovery in these field relied heavily on trial and error experiment, which were time consuming human expensive, and limited by human intuition with the introduction of AI. researches Can now analyze massive datasets, Predict chemical Properties design new material and accelerate innovation at an unprecedented Pace. AI acts as Powerful tool that Supports Scientists in understanding complex chemical System and discovering advanced material for future technologies.

AI in Chemistry-

In chemistry, AI plays a crucial role in data analysis, molecular. modeling, and reaction Prediction. Machine learning algorithms can study thousand of chemical reaction and identify Pattern that are difficult for humans to detect. AI is widely used in drug discovery where it helps in identifying potential drug molecules to Predicting there their toxicity and optimizing their chemical structure. This significantly reduces the time require to develop new medicines.

AI is used to design advanced material like super conductors, semi conductors, batteries, Polymers and nanomaterial. for ex. in battery technology, AI help identify with higher energy density and longer life cycles, which is essential for electric vehicles and renewable energy storage.

Artificial intelligence has become on 20 indispensable tool in Chemistry and Material Science. It enhances research efficiency, reduces costs, and opens new possibilities for innovation. The combination of human intelligence and artificial Intelligence will shape the future of scientific discovery.

When Code Learned to Listen to the Earth

► Ku. Vanshika Sanjay Dambare
B.Sc.1

When forests Whispered secrets to the sky.
And rivers carried memories drifting by,
Humans once listened only with their eyes,
Missing the truth beneath nature's cries.

Then came a mind made not of bone or breath.
But Spark's of thought that battled silent death
Artificial Intelligence, awake and aware,
Learning to read the language of air.

It Watched the glaciers slowly retreat,
Measured the heat beneath our feet,
Mapped the storms before they were born,
And warned the world of a climate torn.

In jungles deep where footsteps fade,
AI traced paths that poachers made,
Saving lives with digital sight,
Protecting creatures through coded light.

Satellites spoke, and AI heard.
Every image, every word
Detecting droughts from miles away,
Helping farmers choose the right day.

Oceans once blue, now choking with pain,
Found a helper to track the stain-
AI Scanned Waves, plastic, and flow,
Guarding cleanup where humans can't go.

Trees were counted, soil was read,
Future harvests carefully spread.
Not to exploit, but to sustain,
To heal the planet, not to drain.

Yet AI is not a ruler or king,
It is a tool powerful thing,
It needs our values, heart, and care,
To truly keep the planet fair.

For When technology walks with grace,
And humanity knows its place,
The Earth may breathe, revive, and stay
A greener, wiser, hopeful way.

So let us code with conscience clear
And guard the world we hold so dear,
For when machines help nature thrive,
The future proves we chose life.

"The Earth close not speak in number,
Yet code learned to understand its breath".



AI's Artistic Ascent: A Symphony of Code and Creativity...

► Ku. Vaishnavi Sunil Bhojar
B.Sc.1

In realms where artistry takes hold.
And creativity's stories are told,
A new dawn breaks, a digital gleam.
Where AI chances fulfilling a dream.
 With circuits humming, a vibrant core,
 It enters the world, to explore.
 The depths of art, the soul's desire,
 Igniting Passion, setting hearts afire.
Through algorithms brush it wields.
Across the canvas, new beauty yields.
Analyzing styles, with keenest sight.
Creating wonders, both day and night.
 No longer bound by human hand.
 It crafts new world, across the land.
 A symphony of code and grace.
 In Every stroke, a time and space.
From pixels born, a vibrant hue.
AI's Creations, fresh and new,
It paints with light, with shades so deep,
Secrets of the universe to keep.
 In music's realm, it finds it's voice,
 composing melodies, a conscious choice,
 Harmonies blend a sweet embrace,
 AI's music, time cannot erase.
Through Stories-spun, and verse bright.
It weaves new tales, with all it's might.
characters emerge, with hearts so bold,
AI's narratives, forever told.
 A partnership, where minds combine,
 Human and machine, in art's design,
 Together they explore, create & share,
 A future bright, beyond compute.
So Let us marvel, at this art,
where AI plays a vital part,
In creativity's grand expanse,
AI in art, a timeless dange

AI in Biology and Health

► **Ku.Anjali Sunil Kambe**
B.Sc.1

What is AI?

There is no universally agreed definition of AI. The term broadly refers to Computing technologies that resemble processes, associated with human intelligence, such as reasoning Learning and adaptation. Sensory understanding and interaction, Currently, most application of AI are narrow, in that they are only able to carry out specific tasks and solve predefined problems. AI works in range of ways, drawing on principles and tools, including from maths Logic, and biology.

A) Introduction to Artificial Intelligence in Biology:

I) Overview of AI and its Applications:

Artificial intelligence (AI) is a sub field of computer science that aims to mimic human intelligence and perform tasks similar to human abilities. It is closely related to data science, machine Learning and statistics. Artificial intelligence (AI) is the technical simulation of human intelligence using computer-based programs and Robotics to mimic biological thought processes and physical expressions. It involves interdisciplinary application-oriented toolboxes such as Machine Learning, deep learning, Robotics, gesture, Facial expression and cognitive and language processing. AI was First formally defined at the Dartmouth Summer Research project workshop in 1956 and Later, developed by Stanford University in 1972. AI's promises in its ability to discover structure in large datasets, and use this ability structure to make predictions or perform tasks. Its Strengths complement human abilities, such as the ability to see patterns in high-dimensional data.

II) AI tools for analyzing and interpreting data:

AI has revolutionized the way we analyze and interpret data with application in various fields such as neuroscience, protein modeling, genetic sequence, analysis, medical diagnosis and drug discovery. The recent success of deep learning has rekindled interest in this approaches, with researchers engineering artificial neural networks. (ANNs) than can fulfill their potential.

The last decade has seen significant advances in the ability of AI to solve difficult problems once thought intractable for artificial systems. Neuro-scientists have also begun using ANNs as models of real neural computation, with new experimental techniques facilitating direct comparisons between ANNs and real brain. This correspondence has been observed in feed forward and recurrent neural networks across various brain areas, including visual language, motor and perceptual areas.

(B) Fundamental of Artificial Intelligence :

I) Machine Learning Basics :-

Drug discovery traditionally involves, complex and time consuming screens to identify potential compounds within a library. However, AI and machine Learning can help overcome these challenges. AI can accurately predict the properties of potential compounds, avoiding wasted time and money. It can also help develop new Compound by creating molecules with predicted success properties, improving drug discovery and development. AI can also eliminate repetitive tasks in assessing drug effectiveness. For example AI has helped develop a novel anti-cancer drug, an A2 receptor antagonist which helps T cells attack Cancers. Overall, AI and machine learning can significantly improve drug discovery and development.



II. Deep Learning and Neural Networks:

Which modifiable components of a Learning System are responsible for its success or failure ? what changes to them improve performance? This is a general credit assignment methods for universal problem Solvers that are time - optimal in various theoretical sense. The present Survey, however, will focus on the narrower, but how commercially important Sub field of Deep Learning (DL) in Artificial Neural.

(C). Application of AI Biological Research

I) Genomics and Bio-informatics-

Corona virus have the largest genomes among all known RNA. Viruses, allowing them to accommodate and modify genes more effectively. The GTC contents of Corona virus genomes range from 32% to 43%. Both the 5 and 3 ends of coronavirus genome contain short untranslated regions. The genome organization of all corona virus are similar with the characteristic gene order S'-replicase ORF lab, spike (S), envelope (E), membrane (M), and nucleocapside (N)-3. A transcription regulatory Sequence (TRS) motif is present at the 3' end of the Leader sequence, which is believed to mediate the unique random template switching during RNA replications. Leading to a high Frequency of homologous RNA recombination in Corona Virus.

II. Medical Imaging and Diagnostics:

Medical Imaging is medical technics that involves examining the interior of a body for clinical analysis and intervention as well as visual representation of organ or tissue Function. It aims to reveal internal structures hidden by skin and bones, diagnose and treat diseases, and establish a database of normal anatomy and physiology to identify abnormalities. Although imaging of removing organs and tissues can be performed for medical response they are typically considered by part of pathology other imaging technique Such as Electroncephalography (EEG), Magnetoencephalography (MEG), and Electrocardiography (ECG), are not primarily designed to produce images but can be considered form of medical imaging in another medical instrumentation discipline. As of 2010, 5 billion medical imaging accounting for about studies were conducted worldwide, with radiation exposure from medical imaging accounting for about 50%. of total ionizing radiation exposure from in the United State's medical imaging equipment imaging chips amounting to 46 million units and 1 billion.

(D) AI for Healthcare and Disease Management:

I) Disease Diagnosis and prognosis:

Artificial Intelligence (AI) and Machine Learning (ML) are powerful tools use to analyse and predict data, rules, and instructions. This technologies are particularly useful in cancer prediction, a chronic, aggressive, and unpredictable disease with low survival rates. However, challenges such as limited involvement in medicine accessibility for racial minorities and difficulty distinguishing between benign growth and other disorders persist.

Image based risk models are being developed by researches, but they require extensive Scientific Proof and computational advancement. Factor models assign person the probability of a future unfavorable outcome over a specific time period. AI, ML and DL are useful in early cancer prediction improving the chances of care and survival.

Aberrant DNA methylation could be a significant biomarker for tumor diagnosis, therapy, end prognosis, as it is closely connected to various disorders and is typically more stable than gene regulation. These tools can help improve early cancer diagnosis, therapy and prognosis.

AI in Biology and Health Care

What is AI?

There is no universally agreed definition of AI. The term broadly refers to computing technologies that resemble processes associated with human intelligence, such as reasoning, learning, and adaptation, sensory understanding, and interaction. Currently, most applications of AI are narrow, in that they are only able to carry out specific tasks or solve pre-defined problems. AI works in a range of ways, drawing on principles and tools, including from maths, logic, and biology.

Recent Interest in AI -

AI is hot news, but there have been rapid advances in the field in recent years. This has in part been enabled by development in computing power and the huge volumes of digital data that are now generated. A wide range of applications of AI are now being explored with considerable public and private investment and interest. The UK Government announced its ambition to make the UK a world leader in AI and data technologies in its 2017 industrial strategy in April 2018. An AI Sector Deal between UK Government and industry was announced, including £300 million towards AI research.

AI is lauded as having the potential to help address important health challenges, such as meeting the care needs of an ageing population. Major technology companies including Google, Microsoft and IBM are investing in the development of AI for healthcare, and research. The number of AI start-up companies has also been steadily increasing. Medical and Policy Communities.

Healthcare Organizations -

AI has the potential to be used in planning and resource allocation in health and social care services. For example, the IBM Watson care manager system is being piloted by Harrow Council with the aim of improving cost efficiency.

It matches individuals with a care provider that meets their needs, within their

► **Ku. Janhavi Gajahar Bawankar**
B.Sc.1

allocated care budget it also designs individual care plans and claims to offer insights for more effective use of care management resources.

AI is also being used with the aim of improving patient experience. Alders Hey children's Hospital in Liverpool is working with IBM Watson to create a cognitive hospital, which will include an app to facilitate interactions with patients. The app aims to identify patient anxieties before a visit. Provide information on demand, and equip clinicians with information to help them to deliver appropriate treatments.

Medical Research -

AI can be used to analyse and identify patterns in large and complex datasets faster and more precisely than has previously been possible. It can also be used to search the scientific literature for relevant studies, and to combine different kinds of data, for example, to aid drug discovery. The Institute of Cancer Research's Cancer SAR database combines genetic and clinical data from patients with information from scientific research, and uses AI to make predictions about new targets for cancer drugs. Researchers have developed an AI 'robot scientist' called Eve which is discovering faster and more economical AI systems used in healthcare could also be valuable for medical research by helping to match suitable patients to clinical studies.

Clinical Care -

AI has the potential to aid the diagnosis of disease and is currently being trialled for this purpose in some UK hospitals. Using AI to analyze clinical data, research publications, and professional guidelines could also help to inform decision about treatments. Possible uses of AI in clinical care include.

Medical imaging - medical scans have been systematically collected and stored for some



time and are readily available to train AI system. AI could reduce the cost and time involved in analyzing scans, potentially allowing more scans to be taken to better target treatments. AI has shown promising results in detecting conditions such as Pneumonia Breast and skin cancers, and eye diseases.

Echocardiography- the ultrasonic system, trialled at John Radcliffe Hospital in Oxford, uses AI to analyze echo-cardiography scans that detect patterns of heartbeats and diagnose coronary heart disease.

Screening for neurological conditions - AI tools are being developed that analyse speech patterns to predict psychotic episodes and identify and monitor symptoms of neurological conditions such as Parkinson's disease.

Surgery - Robotic tools controlled by AI have been used in research to carry out specific tasks in keyhole surgery, such as tying knots to close Wounds.

Patient and Consumer Facing Application -

Several apps that use AI to offer personalised health assessments and home care advice are currently on the market. The app Ada Health Companion uses AI to operate a chat-bot which combines information about symptoms from the user with other information to offer possible diagnosis. GP at Hand, a similar app developed by Babylon Health, is currently being trialled by a group of NHS surgeries in London.

Information tools or chat-bots driven by AI are being used to help with the management of chronic medical conditions. For example, the Arthritis Virtual Assistant developed by IBM for Arthritis & Research UK is learning through interaction with patients to provide personalised information and advice concerning medicines, diet and exercise

Limits of AI -

AI depends on digital data, so inconsistencies in the availability and quality

of data restrict the potential of AI. Also, significant computing Power is required for the analysis of large and complex data sets. While many are enthusiastic about the possible uses of AI in the NHS, others point to the practical challenges, such as the fact that medical records are not consistently digitized across the NHS, and the lack of interoperability and standardization in NHS IT system digital record, keeping, and data labeling. There are questions about the extent to which patients and doctors are comfortable with digital sharing of personal health data.

Ethical and Social Issues -

Many ethical and social issues raised by AI. Overlap with those raised by data use; automation, the reliance on technologies more broadly and Issues that arise with the use of assistive technologies and telehealth. The performance of symptom checker apps using AI, has been questioned for example, it has been found that recommendation from apps might be overly cautious, potentially increasing demand for unnecessary tests and treatments.

Reliability and Safety -

Reliability and safety are key issues where AI is used to control equipment, deliver treatment or make decisions in healthcare. AI Could make errors and, if an error is difficult to detect or has knock-on effects, this could have serious implications. For example, in a 2015 Clinical trial an AI app was used to Predict which Patients were likely to develop complications following pneumonia, and therefore should be hospitalised. This app erroneously instructed doctors to send home patients with as due to its inability to take contextual information into account.



AI in Chemistry and Material Science

► **Ku. Antara Sanjay Janbandhu**
B.Sc.1

Artificial Intelligence (AI) is rapidly transforming the fields of Chemistry and Material Science. By combining Computer Science and with scientific research. AI helps scientists analyze complex data, predict outcomes and accelerate discoveries that once took many year. Today, AI plays a key role in developing new chemicals, advanced materials, medicines. and sustainable technologies.

In Chemistry, AI is widely used for data analysis and prediction, chemical experiments generates large amounts of data, which are often difficult to analyze using traditional methods. AI algorithms especially machine learning models, can study these datasets to identify patterns and relationships between chemical structures and their properties. this help chemicals predict reaction outcomes, reaction rates and product yields more accurately. As a result, AI reduce trial-and-error experiments, saving both time and resources.

AI also plays an important role in drug discovery and pharmaceuticals chemistry by analyzing millions of chemical compounds. AI can predict which molecules are most likely to work as effective drugs. this significantly speeds up the process of identifi cantly potential medicines and reduce the cost of laboratory testing. Ai models can also help predict side effects and toxicity improving the safety of new drugs.

In Material Science, AI is used to design and discover new materials with specific properties. for Ex. AI helps scientists develop stronger alloys, light weight materials, better batteries, and help performance semiconductors. Machine learning models can predict properties such as strength, conductivity, flexibility, and thermal stability even before the material is especially useful in developing renewable energy materials, such as solar cells and energy storage system.

Another important application of AI in a materials science is materials optimization. AI can suggest the best combination of element and processing conditions to improve material performance. This is useful in industries such as aeroplane, electronics, construction and manufacturing. AI also supports nanotechnology research by analyzing atomic level structure and predicting nanoscale behaviour.

AI contributes to sustainability n both Chemistry and Material Science. It helps in developing eco-friendly chemicals, reducing waste and designing recyclable and biodegradable materials. AI models can optimize chemical processes to minimize energy consumption and harmful emission, supporting green chemistry principle.

Despite its advantages, AI has certain limitation. It depends heavily on high quality data, and incorrect or incomplete data can lead to inaccurate predictions. Moreover, AI cannot completely replace human creativity and scientific intuition, Instead, its acts as powerful tool that supports researchers.



AI in Healthcare and Biology

► **Ku. Kaveri M Gajbe**
B.Sc.3

Artificial Intelligence (AI) is one of the most powerful and innovative technologies of the modern era. It refers to computer systems that can think, learn, and make decisions like humans. Today, AI is transforming many fields, and especially health care biology. By using advanced algorithms and data analysis, AI helps Scientists, doctors, and researchers to solve complex problems more quickly and accurately. As a result, it is improving the quality of medical services and saving countless lives. In biology, researchers often deal with huge amounts of data related to lives, genes, cells, proteins, and microorganisms. Analyzing this data manually is time-consuming and difficult. AI makes this task easier by processing large datasets within seconds and identifying patterns that humans may miss. For example, AI is widely used in genomics to study DNA sequences and detect genetic mutations that may cause diseases. It also helps in understanding how viruses and bacteria spread, which is useful for preventing infections, and developing vaccines.

AI plays an important role in drug discovery as well. Traditionally, years and costs, a lot of money. AI can predict which chemical compounds will work best as drugs, reducing time, effort, and expenses. This technology has helped researchers find treatments for diseases such as cancer, diabetes, and neurological disorders more efficiently. In health care, AI has greatly improved diagnosis and treatment. AI-powered systems can analyze medical images like x-rays, CT Scans and MRIs with high accuracy. They help doctors detect diseases such as tumors, fractures, or heart problems at an early stage. Early detection increases the chances of successful treatment and recovery. AI also helps doctors by studying patient records and suggesting the best treatment plans. Another important use of AI is robotic surgery. AI-assisted robots help surgeons perform delicate and complex operations with greater precision. These surgeries cause less pain, smaller cuts, and faster recovery for patients. In addition, virtual assistants and chatbots provide basic medical advice, answer patient questions, and remind them to take medicines on time. This improves communication between patients and health care providers. Artificial Intelligence is rapidly changing the world and has become an important part of modern life, from smart phones and smart assistants to hospitals and industries. AI is being used everywhere. As technology continues to grow, future AI looks very promising. One of the major future trends of AI is automation.

Conclusion:-

Artificial intelligence is transforming biology and health care in multiple ways, from analyzing genetic data and discovering new drugs to diagnosing diseases and assisting in surgery, science, and medicine. AI is making science faster, more accurate, and more efficient. Early detection and robotic surgeries are just a few examples of how AI is improving patient care.

प्राध्यापकांचे लेख



N.S.S. ACTIVITIES



Construction of Gabbian structure



Visit to Matoshree Vrudhashram, Malegaon



Guest lecture on Viksit Bharat @2047



Ecofriendly Ganesh Festival

SIGNature CLUB ACTIVITIES



World Environment Day (Tree Plantation Program)



Extension Activity - Ganesh Idol Center

Youth Festival



Students Mime performance in youth festival



Youth Festival - Sugam Sangeet

DEPARTMENTAL ACTIVITIES



Visit at Dr. Panjabrao Deshmukh Agriculture College
(Department of Botany)



Harbal Holi Workshop
(Department of Chemistry)



Exploring knowledge through Quiz Competition
(Department of Physics)



Inauguration Function
(Department of Computer Science)



Mass Reading
(Department of Library)



Celebration of National Mathematics Day -2025
(Department of Mathematics)



Wild Life Week — 2025
(Department of Zoology)



Inauguration Function
(Department of Electronics)

AI for Humanity: Bridging Technology and Human Advancement

► Dr. P. R. Wadnerkar
Principal

Abstract:

The rapid advancement of artificial intelligence (AI) presents a transformative opportunity for human society. As AI technologies permeate various sectors such as healthcare, education, and industry, it becomes essential to understand both their potential benefits and the challenges they introduce. This exploration serves not only to highlight technological growth but also to address pressing ethical considerations and the implications for human advancement.

AI's capabilities can enhance human productivity and creativity, solving complex problems more efficiently than traditional methods. However, with such power comes responsibility. The interaction between AI and human society must be approached with careful consideration to ensure equity, transparency, and ethical integrity. Therefore, this article aims to present a detailed analysis of AI's role in enhancing human life while emphasizing the need for responsible development.

This discussion is pertinent for researchers, educators, and professionals who seek a deeper understanding of how AI can bridge the gap between technology and human experiences. Each section will methodically explore key research findings, break down complex concepts, and synthesize insights for a rich understanding of this evolving dynamic.

Introduction -

The introduction of artificial intelligence (AI) into society represents a paradigm shift. It is reshaping how we interact with technology and how technology interacts with us. Understanding this relationship is crucial for several reasons. Firstly, AI is not just a tool; it is a catalyst that amplifies human capacities. This amplification can lead to increased efficiency and productivity across various sectors. Secondly, as AI systems become more prevalent, the ethical implications surrounding their use must be scrutinized. These considerations are essential to ensure that technology serves humanity effectively and responsibly.

In this section, we will define AI and explore the historical context surrounding its development. This will lay a foundational understanding of AI's roles and responsibilities within human society, setting the stage for the deeper examination of its impacts in later sections.

Defining Artificial Intelligence -

Artificial Intelligence refers to the simulation of human intelligence processes by machines, especially computer systems. These processes include learning, reasoning, problem-solving, perception, and language understanding. AI can be categorized broadly into two types: narrow AI and general AI. Narrow AI, also known as weak AI, is designed to perform a specific task, such as facial recognition or internet search. In contrast, general AI, or strong AI, would have the ability to perform any intellectual task that a human can do.

To understand AI's implications, it is integral to grasp its mechanics. Machine learning, a subset of AI, enables systems to learn from data and improve over time without explicit programming. Deep learning, a more advanced form, mimics the human brain's neural networks, allowing for complex decision-making processes. Both techniques are crucial for the ongoing evolution of AI technologies.

Historical Context of AI Development

The journey of AI began in the mid-20th century. One of the most significant early milestones was the Dartmouth Conference in 1956, where key figures, including John McCarthy



and Marvin Minsky, gathered to discuss AI's potential. The initial optimism led to substantial funding and research, but it also faced periods of stagnation known as "AI winters" due to unmet expectations.

As computational power increased and data became more accessible, the late 20th and early 21st centuries marked a resurgence of interest in AI. Breakthroughs in machine learning, particularly through the introduction of neural networks, have led to the practical applications of AI in industries today. For instance, Google and IBM have developed advanced AI systems that serve various purposes, from healthcare diagnostics to autonomous driving.

Today, AI's presence is all around us. It shapes how we consume information, interact with services, and even make decisions in critical areas. Understanding this trajectory is essential for realizing how AI can bridge the gap between technology and human advancement.

AI's Role in Society -

The intersection of artificial intelligence and societal dynamics is a pivotal theme in today's discourse, revealing broad implications across various facets of life. AI has the potential to significantly reshape how we approach existing challenges in healthcare, education, business, and daily living. Understanding its role is crucial for evaluating both the benefits and risks associated with its integration into our everyday lives.

In exploring AI's impact, we delve into specific sectors and how AI technologies facilitate more efficient processes while enhancing human capabilities. However, these advancements also bring considerations that cannot be overlooked. These include implications regarding equity, accessibility, and the ethical dilemmas that emerge from increasing reliance on technology.

AI in Healthcare

AI is transforming healthcare by enabling more accurate diagnoses, personalized treatment plans, and improved patient care outcomes. Machine learning algorithms analyze vast amounts of data, identifying patterns and providing insights that human practitioners alone may overlook. For instance, systems like IBM Watson assist in oncology by evaluating medical literature to offer treatment recommendations tailored to individual patients.

AI in Education

In the educational sphere, AI offers tailored learning experiences that adapt to individual student needs. Platforms powered by AI can create personalized learning paths based on a student's strengths and weaknesses. This makes education more accessible and effective, catering to diverse learning styles.

- **Adaptive Learning Technologies:** Tools such as ALEKS utilize AI to assess students' knowledge and provide customized lessons.
- **Administrative Efficiency:** AI can automate grading and administrative tasks, freeing educators to focus on teaching.
- **Enhanced Access:** AI can help bridge gaps for learners in remote or underserved areas through online resources.

However, the adoption of AI in education raises questions of data security and potential biases in algorithm-driven recommendations. Schools must prioritize ethical frameworks to guide AI integration.

AI in Business

Businesses leverage AI to drive efficiency, innovation, and customer engagement. From automating routine tasks to analyzing customer data for strategic insights, the application of AI technologies has revolutionized the corporate landscape.

Notable applications include:

- Customer Service: Chatbots, such as those used by Zendesk, provide real-time assistance, improving user experience.
- Supply Chain Optimization: Companies implement AI for inventory management, forecasting demand accurately.
- Marketing Personalization: AI analyzes consumer behaviors, allowing businesses to target specific segments more effectively.

On the downside, there are concerns regarding job displacement as automation rises. It is critical for businesses to adopt responsible AI practices that consider workforce impacts.

AI in Daily Life

AI is increasingly prevalent in everyday activities, enhancing convenience and efficiency. From smart home devices like Google Nest to personal assistants such as Apple's Siri, AI technologies are woven into fabric of modern life.

Key aspects include:

- Home Automation: AI-driven systems optimize energy usage and offer security features.
- Personalized Content: Streaming services like Netflix utilize AI algorithms to recommend shows based on viewing history.
- Healthcare Apps: Wearables track fitness and health metrics, providing personalized insights for better decisions.

Despite these conveniences, users must remain vigilant about privacy implications arising from AI's data collection practices. Understanding how data is used and protected is essential in this digital age.

By recognizing AI's role across varied societal sectors, we can better appreciate its potential and challenges. A measured approach will be necessary as we integrate AI into our lives.

Enhancing Human Capabilities with AI -

The intersection of artificial intelligence and human capability offers a landscape rich with potential. As we delve into the ways AI enhances our abilities, we must consider the underlying mechanisms that enable such advancements. Embracing AI can significantly empower individuals and communities, promoting innovative solutions to complex problems. The integration of AI into daily activities serves not only to augment skills but also to facilitate new learning and creativity. This section focuses on three essential aspects: AI as an augmentative tool, its role in fostering creativity, and enhancing decision-making.

AI as an Augmentative Tool -

AI acts as a supportive resource, optimizing human performance across various domains. For instance, in professional settings, AI-driven applications improve efficiency. Tools like Grammarly enhance written communication by suggesting edits and improving clarity, allowing users to focus more on content creation.

Empowering Creativity through AI -

AI's role extends into creative fields, pushing boundaries that redefine artistic expression. Applications like Adobe Creative Cloud incorporate AI-driven features that assist artists in visual design. These features can automatically suggest layouts, choose color palettes, or even generate art based on user preferences. Here, AI does not replace creativity; rather, it enhances the capabilities of artists and designers.

Moreover, in writing and content generation, tools like Jasper help content creators by proposing ideas or structuring narratives. This function allows for a more fluid creative process. Ultimately, the relationship between AI and creativity is symbiotic. AI tools can prompt ideas that may not have surfaced otherwise, sparking an ever-evolving dialogue between man and machine.



AI in Decision Making -

AI also plays a critical role in the decision-making process, especially in environments laden with uncertainty. AI systems analyze data to identify patterns and forecast trends. In business, for example, predictive analytics tools help organizations to make informed decisions about resource allocation or product launches.

The implications are notable:

- **Data-driven insights:** AI empowers decision-makers by sifting through large sets of data, presenting actionable insights.
- **Risk mitigation:** By forecasting potential challenges, AI enables businesses to devise strategies that minimize risks and maximize opportunities.
- **Real-time processing:** AI systems can operate at speeds far beyond human capability, allowing organizations to respond promptly to market changes.

Ethical Considerations Surrounding AI

The rapid integration of artificial intelligence (AI) into various facets of human life necessitates a nuanced examination of the ethical implications that accompany such advancements. Ethical considerations are crucial because they guide how AI technologies are designed, implemented, and governed. This section will unravel specific elements related to privacy, bias, and employment, all of which are significant aspects of the conversation surrounding responsible AI development.

Privacy and Security Concerns -

As AI systems proliferate, the collection and utilization of vast amounts of personal data raise serious privacy and security issues. Many AI applications require data to function effectively. For example, healthcare AIs may need access to sensitive patient information to provide accurate diagnoses and treatments. This raises questions about consent and the potential misuse of data.

Moreover, the security of the data collected is paramount. Breaches can lead to unauthorized access to personal information, compromising individual privacy and institutional integrity. It is essential that organizations implementing AI systems prioritize data protection measures. This includes adopting robust encryption protocols and adhering to global standards like the General Data Protection Regulation (GDPR).

"The ethical deployment of AI is as critical as its technical success."

Bias in AI Algorithms -

Bias in AI algorithms is a pressing concern that can perpetuate existing societal inequalities. AI systems learn from training data, and if that data contains inherent biases, the AI can produce skewed results. For instance, facial recognition software has shown higher error rates for people of color, primarily due to an under representation in training datasets.

Addressing bias requires awareness and intentionality in AI development. This includes diversifying training data and implementing fairness audits. Developers must actively seek to identify biases and mitigate their impact to ensure equitable outcomes.

Conclusion:

The implementation of AI technology has sparked anxiety regarding its impact on employment. As AI systems take over repetitive tasks, many fear widespread job displacements. However, the situation may be more nuanced. While certain roles may become obsolete, AI can also create new job categories and enhance existing positions. For example, AI can assist healthcare practitioners by automating routine tasks, allowing them to focus on patient care.

To navigate the future of work, education systems must adapt to prepare the workforce for an AI-driven landscape. Upskilling and reskilling workers will be vital in ensuring that individuals can transition to new roles that AI technologies create. Additionally, policymakers must consider regulations and support systems that aim to minimize the adverse effects of AI on employment.

Artificial Intelligence in Earth Science and Astronomy

► Dr. A. P. Pachkawade

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Department of Physics

1) Artificial Intelligence in Earth Science :

Artificial Intelligence and Machine Learning have rapidly become indispensable tools in the scientific exploration of both the cosmos and our home planet. Artificial Intelligence accelerates discoveries in astronomy and provides critical, real-time insights into Earth's climate and environmental changes.

Science can be considered to be a branch of planetary science but with a much older history.

In several fields of earth science research, including geophysics, artificial intelligence (AI) has emerged as a highly helpful tool. For instance, it is employed in petro physics to classify lithofacies and characterize reservoirs using well-log data. The AI is utilized in seismology for earthquake characterization as well as in gravity and magnetism for contacts identification and causative source characterization. Artificial intelligence is utilized in seismic data processing for waveform inversion, automatically selecting seismic first-arrivals, and automatically interpreting seismic horizons and faults. ANNs are used in electromagnetism to interpret data from the air. The segmentation and categorization of topographic profiles of ridge-flank seabed are done in oceanography using artificial intelligence (AI). With the advancement of computer sciences, artificial intelligence and machine learning have emerged as a popular research topic in geophysics. The aim of the research topic is to compile the most recent developments in the field of artificial intelligence and machine learning in geophysics. We accept articles on this research topic that concentrate on machine learning and artificial neural networks in the following areas, as well as additional pertinent research, such as:

- 1) Petro physics/Formation Evaluation
- 2) Seismic method
- 3) Gravity/Magnetic Potential field methods
- 4) Electromagnetism/Magneto-telluric
- 5) Geology/Geophysics
- 6) Geography, Geodesy/Topography
- 7) Oceanography Hydrology/Hydrogeology
- 8) Application of the fractal Analysis combined with Artificial Intelligence in earth sciences
- 9) Wavelet Transform/Edges detection techniques combined with Artificial Intelligence
- 10) New learning techniques/Deep learning in Earth Sciences

The number of sensors being used throughout the world has allowed for a rapid expansion in human understanding of earth processes. These sensors collect enormous volumes of geolocated data every day that aid in our knowledge of the natural world, human civilization, and space. The data is necessary to: learn about and comprehend natural systems; anticipate trends and effects of human activity; and evaluate risks to human society and the environment.





We are still unable to effectively and fully use this vast data mining despite the availability of multiple tools, techniques, and theories. Due to the manual design and management of data, current hypotheses about how the planet will react to climate change are replete with irrational and subjective assumptions. In numerous situations, such as identifying street views, extracting roadways, and understanding medical pictures, artificial intelligence (AI) algorithms have surpassed traditional data management. Many well-known ideas and techniques emerged from the first wave of AI research in the 1980s, but due to computer constraints, the initial models were too laborious to train. AI has advanced scientific developments and discoveries in health, biology, and economics thanks to the recent fast growth of hardware and software. Nowadays, AI is employed in numerous real-world applications, including banking, camera object detection, telecommunications, robotic cleaners for the home, recommendation systems, autonomous driving, self-checkout, etc. All of these applications rely on computer algorithms that imitate the nerve systems of the brain to process information and find solutions to issues. However, unlike human brains, which can distinguish between a variety of items after just learning one of them deductively, AI systems must first learn thousands of patterns in order to arrive at reliable conclusions. Big data manipulation is essential to create trustworthy AI-based workflows because of the crucial role that big data plays in the development of AI. As more people are exposed to natural (such as tectonic earthquakes, volcanoes, and landslides) and manmade (such as artificial earthquakes, dam collapses), geohazards, there are more difficult difficulties that must be overcome. In order to maintain infrastructure in the face of these difficulties, earth scientists must give a greater knowledge of these occurrences and the physical principles underlying them. Even though it has a long way to go before it is completely realized, AI is increasingly pervasive in all facets of geology, including the look for minerals. There is still a lot to learn about earthquake production processes and effects, despite their frequent occurrence and severe repercussions. Numerous applications of AI approaches have been made to earthquake predicting, the Holy Grail of Seismology.

Recurrent and feed forward neural networks are two of the most popular ML techniques for this job. In these methods, neural networks provide predictions about the size and position of upcoming earthquakes within a certain window of time or place, frequently based on historical data about the frequency, size, and focus of prior quakes. There are still issues with how sophisticated DL will be successfully used for AI-based seismic forecasts, despite recent advances in this area. This is due to the fact that few characteristics are available for training more complicated models and the majority of earthquake catalogs are simply tabular in nature. However, DL techniques have sped up the creation of more accurate and effective seismic monitoring systems. AI-based earthquake monitoring techniques can improve seismic hazard safety in two ways: by giving Earthquake Early Warning (EEW) systems access to quicker and more accurate earthquake parameter estimations; and by delivering more accurate and detailed earthquake catalogs that can be used to enhance long-term seismic hazard assessments. With an unforeseen tremendous capability of predicting the Earth's future and navigating natural risks and resources in advance to save lives and safeguard the environment, Earth AI is built to defend humankind.

The power has a limit, though, and it can't save everyone in an event like a geohazard or disruptive one. What if Earth AI makes a mistake overlooks a region or population, underestimates the harm, and causes more deaths or more extensive damage? Earth AI is a sophisticated but still non-existent system that lacks legal status. However, it acts with a certain amount of self-will and its choices have an influence on society. The ethical issues raised by AI when it is in use are the subject of a vast body of study. Critics have looked at the connection

between the oppression of racial minorities by AI systems and how it reinforces pre-existing prejudice, as well as the role that cultural bias plays in algorithmic inequity. Soon, there will likely be several rules and laws governing AI ethics on Earth. In this article, we briefly discuss a few of the various routes toward more moral AI in the earth and environmental sciences, including more accessible datasets and impartial algorithms. By collaborating with social scientists, ethicists, and philosophers who have been researching the societal consequences of AI in the fields of policing, law, and finance, engineers should build Earth AI ethics-related logic. This involves creating guidelines for ML researchers to engage with ethics as both a philosophical and practical endeavour, as the gathering of data and the selection of one model over another has an immediate influence on ecosystems and people. Last but not least, we think that for there to be a fair and ethical movement in AI in geosciences, one must communicate their application of any ML or AI to the larger community it impacts (for instance, if an automated method for developing land cover maps will directly impact on representations of Indigenous land).

2) Artificial Intelligence in Astronomy:

Artificial Intelligence (AI) and Machine Learning (ML) have become indispensable tools in modern astronomy, acting as "digital telescopes" that process massive observational datasets and detect faint cosmic signals far beyond human capabilities. AI drives breakthroughs in data analysis, telescope automation, and the discovery of new celestial phenomena



1. Data Processing and Classification:

Modern sky surveys (like those from the Euclid telescope) generate pet bytes of images. AI foundation models are deployed to classify raw telescope images, swiftly distinguishing between stars, galaxies, and nebulae. Algorithms can rapidly sift through decades of archival data to categorize known celestial objects and lighten the load for human researchers.

2. Anomaly Detection and Discovery:

AI excels at sifting through massive datasets to find "the needle in the haystack". Machine learning models identify anomalies—objects or light signals that deviate from expected cosmic patterns. This capability has led to the discovery of rare explosive transients, unusual fast radio bursts, and hundreds of previously unseen cosmic phenomena.

3. Exoplanet Hunting:

Finding planets orbiting distant stars involves detecting extremely subtle dips in a star's brightness (transit method) or slight magnifications caused by gravity (microlensing). AI algorithms process light curves collected by space observatories to filter out noise, validate planetary signatures, and discover Earth-like exoplanets that human analysts might overlook.

4. Enhancing Observations and Simulations:

AI algorithms are integrated directly with adaptive optics hardware on ground-based telescopes to compensate for atmospheric distortion in real-time. Additionally, AI emulators are utilized to run rapid universe simulations, cutting down computational time when modeling complex phenomena such as galaxy formation and dark matter distribution.



Artificial Intelligence in Banking System

► Ms. P. R. Deshmukh

Department of Electronics

Artificial Intelligence (AI) has become a transformative force in the banking sector, revolutionizing how financial institutions operate and serve their customers. AI refers to the use of computer systems to perform tasks that traditionally required human intelligence, such as learning, reasoning, problem-solving, and decision-making. In banking, AI is applied across various functions including customer service, fraud detection, credit scoring, risk assessment, personalized marketing, investment management, and regulatory compliance. By analyzing large volumes of data in real time, AI helps banks make faster, more accurate, and data-driven decisions while automating routine processes. This not only improves operational efficiency and reduces costs but also enhances customer experience through personalized services and round-the-clock support. Leading banks around the world, such as JPMorgan Chase, HSBC, and Bank of America, are leveraging AI to stay competitive in a rapidly evolving financial landscape, manage risks effectively, and provide secure, efficient, and innovative banking solutions.

AI plays several key roles in modern banking. In **customer service**, AI-powered chatbots provide fast, efficient, and round-the-clock support by understanding customer queries using Natural Language Processing (NLP) and Machine Learning (ML). Integrated into mobile apps, websites, and messaging platforms, chatbots handle routine tasks like checking account balances, transferring funds, blocking cards, and answering frequently asked questions. Examples include Bank of America's AI assistant Erica and HDFC Bank's EVA. These systems not only reduce wait times and operational costs but also improve customer satisfaction through personalized recommendations, spending insights, and payment reminders. However, challenges such as data privacy concerns, limited emotional understanding, and dependency on accurate data still exist.

In **fraud detection and security**, AI continuously monitors transactions and identifies suspicious activities in real time. By analyzing transaction patterns, unusual spending behavior, or unauthorized access attempts, AI can prevent fraudulent transactions immediately. For instance, if a card is suddenly used in a different country or for high-value transactions inconsistent with past behavior, the system can flag or block it. Banks like HSBC and JPMorgan Chase use AI-driven monitoring to detect credit card fraud, identity theft, phishing attacks, and money laundering. AI also strengthens cybersecurity through malware detection and biometric authentication, such as facial recognition and fingerprint scanning. Although false alerts and data privacy concerns remain, AI significantly enhances banking security.

Credit scoring and risk assessment are other areas where AI has a strong impact. Traditionally, banks relied on limited factors such as income and repayment history. With AI, they can now analyze both structured and unstructured data, including transaction patterns, spending habits, and alternative data sources, to predict loan default probabilities and make better lending decisions. Institutions like JPMorgan Chase and American Express leverage AI-driven analytics to minimize bad debts while enabling responsible borrowers to access credit more easily. Despite concerns about data privacy and algorithmic bias, AI improves the efficiency, accuracy, and fairness of credit scoring.

AI also plays a major role in **personalized banking and marketing**, allowing banks to

offer customized financial products and services based on individual behavior. Using transaction history, spending patterns, income levels, and financial goals, AI can recommend credit cards, investment plans, or travel-related services tailored to the customer. Banks like Bank of America and HSBC use AI to deliver targeted marketing campaigns and personalized financial insights, which improves engagement, cross-selling opportunities, and overall customer satisfaction. However, this raises concerns about data privacy and ethical use of personal information.

In **algorithmic trading and investment management**, AI analyzes market data to execute trades at high speed with minimal human intervention. By studying historical price movements, market trends, economic indicators, and news sentiment, AI predicts market behavior and optimizes portfolios. Platforms like BlackRock's Aladdin or JPMorgan Chase's AI models help in risk assessment, portfolio management, and investment strategy. While risks such as market volatility and technical failures exist, AI improves speed, accuracy, and profitability in trading and investment management.

Process automation is another critical application of AI in banking. Combined with Robotic Process Automation (RPA), AI handles repetitive tasks such as data entry, transaction processing, report generation, account reconciliation, KYC verification, and compliance checks. Banks like HSBC and JPMorgan Chase use intelligent automation to streamline back-office operations, reduce manual errors, and improve service delivery. AI can extract information from scanned documents, verify identities, and flag inconsistencies without human intervention, increasing efficiency and accuracy while reducing costs.

AI also strengthens **regulatory compliance and Anti-Money Laundering (AML)** efforts. By monitoring transactions and identifying high-risk or unusual patterns, AI helps banks comply with strict regulations while detecting potential money laundering or financial crimes. Banks like HSBC and Citibank use AI-driven monitoring tools that continuously learn from past cases to improve detection accuracy. Although challenges such as regulatory complexity and high implementation costs exist, AI enhances transparency, reduces compliance risks, and protects banks from legal penalties and reputational damage.

Through **predictive analytics and decision-making**, AI enables banks to anticipate future trends and customer behavior. By analyzing historical and real-time data, banks can forecast loan defaults, optimize liquidity management, identify cross-selling opportunities, and prevent customer churn. Institutions like JPMorgan Chase and HSBC leverage AI to improve strategic planning, risk management, and customer personalization. While challenges like data quality, algorithmic bias, and implementation costs remain, predictive analytics helps banks make faster, smarter, and more informed decisions.

The **benefits of AI in banking** include faster and more efficient services, enhanced customer experience through personalized offerings, improved security and fraud prevention, cost reduction, better risk management, simplified regulatory compliance, data-driven decision-making, and scalability to handle large volumes of transactions and queries. Overall, AI allows banks to operate more efficiently, serve customers better, reduce risks, and remain competitive.

However, there are **challenges** in adopting AI, including data privacy and security concerns, high implementation costs, algorithmic bias, regulatory and compliance complexity, technical integration issues, limited human oversight, customer trust and acceptance, and the need for continuous updates and learning to keep AI systems effective. These challenges require careful planning, transparency, and human supervision to ensure AI is used safely and effectively.



The Algorithmic Arms Race: Redefining Career Success and Governance in 2026

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In 2026, the blueprint for professional success has shifted into a high-stakes "algorithmic arms race." Whether you are targeting a Silicon Valley tech giant or a high-ranking Indian civil service position, the traditional barriers between industry roles and government sectors have blurred into a single, AI-driven infrastructure. Success is no longer measured solely by degrees but by AI-enhanced visibility and the ability to act as an AI Orchestrator—a professional who can produce results by guiding intelligent systems.

The Transformation of Industry Recruitment

The industrial job market has decisively moved past the era of the "static resume," evolving into a high-stakes environment where algorithmic visibility determines professional success. For those in engineering, manufacturing, and technology, career building now begins with Semantic Profile Engineering, where traditional keyword stuffing is replaced by Natural Language Processing (NLP) optimization. Tools like Jobscan and Rezi allow candidates to reverse-engineer complex job descriptions, ensuring their experience is mapped with the "conceptual depth" that modern Applicant Tracking Systems (ATS) require. By aligning a digital footprint with these machine-learning evaluators, professionals transform their human experience into a structured data format that guarantees their profile is surfaced to recruiters rather than being discarded by automated filters.

Beyond the initial application, the most critical shift lies in the rise of AI-Augmented Interview Intelligence. Corporate hiring pipelines across sectors—from automotive to pharmaceuticals—now frequently employ Asynchronous Video Interviews (AVIs) powered by platforms like HireVue. These systems analyze a candidate's speech patterns, technical logic, and even facial micro-expressions in real-time. To gain a competitive edge, savvy job seekers utilize simulation platforms such as Yoodli or Interview Sidekick to perform high-fidelity mock sessions. These "AI coaches" provide granular analytics on pacing, confidence markers, and the structural integrity of responses using the STAR method, allowing candidates to "tune" their performance to satisfy both the rigorous logic of a hiring algorithm and the emotional intelligence required by a human panel. Furthermore, the definition of merit is being redefined by "Learning Velocity" and Agentic Networking. Industrial employers now prioritize a candidate's ability to rapidly acquire new AI tools over a decade of stagnant experience. Maintaining a live, AI-verified portfolio on platforms like GitHub or LinkedIn Learning has become the gold standard for proving technical agility, while tools like **Taplio** allow for data-driven outreach to high-probability connections.

The Cognitive Revolution in Competitive Exams

The preparation for high-stakes gateways like the GATE, UPSC, and GRE has undergone a tectonic shift from traditional rote learning to Hyper-Personalized Cognitive Mapping. This evolution marks the end of the "one-size-fits-all" study schedule, replacing it with a data-driven ecosystem where AI acts as a 24/7 personal neuro-tutor. At the heart of this transformation is the

use of Spaced Repetition Algorithms integrated into platforms like Anki and ChatGPT Plus, which analyze a student's unique "forgetting curve." Instead of a linear slog through a syllabus, these AI systems force candidates to revisit complex topics at the exact millisecond their neural retention begins to dip, ensuring information is moved to permanent cognitive storage with mathematical precision.

The secondary pillar of this new era is Predictive Exam Analytics, which has turned exam preparation into a calculated science. Advanced EdTech engines like Embibe and Magoosh now process decades of historical exam data, identifying subtle shifts in question patterns and difficulty curves. This allows aspirants to perform a "Targeted Gap Analysis" to identify latent knowledge gaps they weren't even aware of. By generating "high-probability" mock tests that simulate the specific cognitive load and time-pressure of the actual exam day, these tools allow candidates to focus their limited study hours on sections that offer the highest "marks-per-minute" return. Furthermore, the format of these exams is being reshaped by Computerized Adaptive Testing (CAT) and AI-Powered Remote Proctoring. In 2026, competitive exams are dynamic; the difficulty of questions adjusts in real-time based on previous answers, providing a precise measurement of a candidate's intellectual ceiling. Integrity is maintained by systems like ProctorU, which track eye movement and keyboard biometrics to ensure a fair environment.

The Rise of Digital Governance

In the public sector, employment has undergone a profound shift toward "The New Digital Governance," where government recruitment is no longer a slow, manual process but a high-speed, AI-integrated engine. This transformation is led by AI-Enabled Recruitment Portals across central and state bodies, which have replaced traditional document verification with Semantic Verification Engines. These systems use NLP to cross-reference a candidate's historical data and certifications against the specific requirements of modern governance. By automating the screening of millions of applicants for exams like the SSC, IBPS, or Railways, agencies have reduced recruitment cycles from years to months, ensuring that vacancies are filled by candidates whose "digital fluency" is mathematically verified.

The core of this era lies in the implementation of AI-Driven Merit Mapping for high-stakes entrance exams. Unlike static paper-based tests, modern government exams utilize dynamic algorithms to measure an individual's problem-solving resilience—a trait essential for handling modern administration. The integrity of these massive exams is maintained by AI-Powered Remote Proctoring, ensuring the meritocracy of the "public servant" remains untarnished even in remote or hybrid formats. Beyond the examination phase, the "final hurdle" for 2026 government jobs often involves AI-Human Collaboration Assessments. In these rounds, candidates are tested on their ability to use Agentic AI tools to solve complex urban planning or resource allocation problems, acting as the critical "Human-in-the-Loop" who can audit AI-generated policy suggestions for bias or error. This shift ensures that the successful 2026 professional is not a "human calculator" but a Strategic Orchestrator capable of navigating the complex intersection of public policy and exponential technology.



A Self-driving Car Vision System

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A **self-driving car vision system** is the core technology that enables an autonomous vehicle to perceive and interpret its surroundings using cameras and artificial intelligence. Acting as the vehicle's "eyes," it captures real-time visual data from multiple cameras placed around the car to monitor the road, traffic, pedestrians, and obstacles. This visual information is processed by advanced computer vision algorithms and deep learning models that detect objects, recognize traffic signs and signals, identify lane markings, and estimate distances. Companies such as Tesla have adopted a vision-focused approach to autonomy, relying heavily on camera systems and neural networks, while others like Waymo combine vision with additional sensors such as LiDAR and radar for enhanced accuracy and safety. The system typically follows a processing pipeline that includes image capture, preprocessing, object detection, tracking, and decision support for vehicle control. One of the major challenges in designing a reliable vision system is ensuring consistent performance under varying conditions such as rain, fog, nighttime driving, and complex urban environments. The development of these systems aligns with automation levels defined by SAE International, which classify vehicles from no automation to full autonomy. Overall, the vision system is a critical component of self-driving technology, enabling vehicles to make safe and intelligent driving decisions in real time.

The **core purpose of a self-driving car vision system** is to enable the vehicle to perceive, understand, and interpret its surrounding environment in real time so it can drive safely and autonomously. Using cameras and advanced artificial intelligence algorithms, the system continuously monitors the road to detect lane markings, recognize traffic signs and signals, identify vehicles, pedestrians, cyclists, and other obstacles, and estimate their distance and movement. By converting visual data into meaningful information, the vision system helps the vehicle make accurate driving decisions such as steering, accelerating, braking, and changing lanes. Ultimately, its main goal is to replicate—and enhance—the visual awareness and decision-making ability of a human driver while improving safety, efficiency, and reliability on the road.

The **main components of a self-driving car vision system** work together to help the vehicle see, understand, and respond to its environment. The first major component is the **camera system**, which captures real-time images of the road, traffic, pedestrians, lane markings, and traffic signs from multiple angles around the vehicle. These cameras provide the raw visual data needed for perception. The second key component is the **perception software**, powered by computer vision and artificial intelligence, which processes the captured images using deep learning models to detect objects, recognize traffic lights and signs, identify lanes, and estimate distances. The third important component is the **processing hardware**, such as GPUs or AI accelerators, which performs high-speed computations to ensure real-time decision-making. Many systems also include **sensor fusion**, where camera data is combined with other sensors like radar or LiDAR to improve accuracy and reliability. Together, these components form the foundation of the vision system, enabling the vehicle to make safe and intelligent driving decisions.

The **key technical tasks** in a self-driving car vision system focus on accurately understanding and interpreting the vehicle's surroundings in real time. One of the most important tasks is object detection and classification, where the system identifies vehicles, pedestrians, cyclists, animals, traffic signs, and other obstacles on the road. Another critical task

is lane detection, which involves recognizing lane markings and road boundaries to keep the vehicle properly positioned. The system also performs traffic sign and traffic light recognition, allowing it to interpret stop signs, speed limits, and signal changes. Semantic segmentation is another essential task, where each pixel in an image is classified to distinguish between road, sidewalk, vehicles, and other elements. Additionally, the vision system carries out depth estimation and distance measurement to determine how far objects are from the vehicle, as well as object tracking, which monitors the movement and speed of surrounding objects over time. Together, these technical tasks enable the vehicle to make safe, accurate, and intelligent driving decisions.

The processing pipeline in a self-driving car vision system refers to the step-by-step sequence through which raw visual data is transformed into meaningful driving decisions. It begins with image capture, where multiple cameras continuously record the vehicle's surroundings. Next is preprocessing, which includes resizing, normalizing, and enhancing images to prepare them for analysis. The processed images are then fed into deep learning models that perform tasks such as object detection, lane recognition, traffic sign identification, and semantic segmentation. After detection, the system performs object tracking and motion prediction, estimating the speed and direction of surrounding vehicles or pedestrians over time. The extracted information is then sent to the planning and decision-making module, which determines appropriate actions such as steering adjustments, braking, or accelerating. Finally, commands are delivered to the vehicle's control system, allowing it to respond in real time. This entire pipeline operates within milliseconds to ensure safe and efficient autonomous driving.

Self-driving car vision systems face several significant challenges that affect their reliability and safety. One major challenge is adverse weather conditions such as rain, fog, snow, and heavy glare, which can reduce camera visibility and distort images. Low-light and nighttime driving also make object detection and lane recognition more difficult. Another challenge is dealing with occlusion, where objects are partially hidden by other vehicles or obstacles, making accurate detection harder. The system must also handle complex urban environments, including crowded intersections, unpredictable pedestrian behavior, construction zones, and unusual road layouts. Additionally, vision systems must be robust against rare or unexpected events (edge cases), such as animals crossing suddenly or debris on the road. Ensuring real-time processing with high accuracy while minimizing errors is technically demanding, as even small mistakes can lead to serious safety risks. Overcoming these challenges is essential for building reliable and fully autonomous vehicles.

A real-world example of a self-driving car vision system in action can be seen when an autonomous vehicle approaches a busy intersection. As the car moves forward, its cameras continuously capture images of the road ahead. The perception software detects a red traffic light, recognizes pedestrians waiting to cross, and identifies nearby vehicles in adjacent lanes. If a pedestrian suddenly steps onto the crosswalk, the vision system quickly classifies the person, estimates their distance and movement, and predicts their path. This information is sent to the planning system, which immediately decides to apply the brakes. Within milliseconds, the vehicle slows down or stops completely to avoid a collision. Companies such as Waymo have demonstrated similar real-world capabilities in urban environments, where their autonomous vehicles safely navigate traffic, obey signals, and respond to dynamic road situations without human intervention.



AI in Cosmology: Exploring the Universe for Human Progress

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The quest to understand the universe has always inspired human curiosity and scientific innovation. Today, the integration of Artificial Intelligence (AI) with cosmology is opening new frontiers in our exploration of the cosmos. By combining advanced computational techniques with astronomical observations, AI is helping scientists unravel the mysteries of the universe while contributing to technological progress that benefits humanity.

Modern cosmology deals with enormous amounts of data collected from telescopes, satellites, and space missions. Observations of distant galaxies, supernovae, and cosmic microwave background radiation provide valuable information about the origin, structure, and evolution of the universe. Analyzing such vast datasets through traditional methods is both time-consuming and computationally demanding. AI offers an efficient solution by identifying hidden patterns, classifying astronomical objects, and making accurate predictions within a short period.

One important application of AI in cosmology is the study of the expanding universe and modified theories of gravity. Scientists use machine learning algorithms to test different cosmological models and compare them with observational evidence. AI can rapidly process complex mathematical relationships and help researchers determine which models best explain the accelerated expansion of the universe. This not only advances scientific knowledge but also encourages innovation in computational science and data analysis.

The benefits of AI-driven cosmological research extend beyond astronomy. Technologies developed for space exploration often find applications in everyday life. Advances in artificial intelligence, image processing, big data analytics, and high-performance computing contribute to improvements in healthcare, communication systems, environmental monitoring, and education. Thus, investments in cosmological research indirectly promote human welfare and technological development.

Moreover, studying the universe fosters a broader understanding of humanity's place in the cosmos. It encourages critical thinking, scientific curiosity, and international collaboration among researchers. AI serves as a powerful tool that accelerates discoveries and enables scientists to address questions that were once beyond human capability. By supporting research in cosmology, AI contributes to a culture of innovation and lifelong learning.

As humanity moves toward an increasingly technology-driven future, the partnership between Artificial Intelligence and cosmology will continue to shape our understanding of the universe. The knowledge gained from exploring cosmic mysteries not only satisfies human curiosity but also drives scientific and technological progress that benefits society as a whole. In this way, AI in cosmology represents a meaningful step toward human advancement, demonstrating that the pursuit of knowledge can ultimately contribute to a better future for all.



Use of Artificial Intelligence (AI) in Mathematics

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Department of Mathematics

In the modern era, Artificial Intelligence (AI) is rapidly transforming every field of knowledge and mathematics is no exception. Once considered a subject of numbers, formulas and logical reasoning alone, mathematics has now entered a new phase where intelligent machines assist in solving problems, discovering patterns and enhancing learning experiences. The integration of AI into mathematics is opening new doors for research, education and real-world applications.

Artificial Intelligence is built upon mathematical concepts such as algebra, calculus, probability and statistics. Interestingly, while mathematics forms the foundation of AI, AI is now helping to advance mathematics itself. This mutual relationship is shaping the future of scientific progress.

One of the key ways AI is transforming mathematics is through its role in research and problem-solving. AI systems can process and examine large volumes of data in a very short time, recognizing patterns that might be difficult for humans to detect. This capability allows mathematicians to investigate new concepts, test theories and confirm results with greater speed and accuracy. In fields like number theory, geometry and algebra, AI is helping researchers achieve quicker and more dependable outcomes.

AI has also significantly improved the teaching and learning of mathematics. Conventional classroom practices are now enhanced by smart tools that support students step by step in their learning process. AI-driven educational platforms can assess a student's strengths and areas needing improvement and then provide tailored exercises accordingly. This personalized method of learning makes mathematical concepts easier to understand and builds students' confidence in solving problems.

Another major advantage is instant feedback. Students can check their answers, understand their mistakes and correct them immediately. This makes the learning process more interactive and engaging. Complex topics such as calculus, graphs and three-dimensional geometry can be visualized with the help of AI-supported tools, making

abstract concepts easier to understand.

In the field of applied mathematics, AI has become very useful in addressing practical, real-world challenges. It is widely used in areas such as data analysis, weather prediction, financial planning, engineering development and medical studies. With the support of AI, mathematical models can forecast future trends, make better use of resources and support effective decision-making. Whether it is controlling traffic flow or shaping business plans, AI-based mathematical tools are now an important part of daily life.

However, along with its advantages, the use of AI in mathematics also presents some concerns. Too much dependence on technology can reduce students' involvement in manual calculations and limit the development of logical thinking skills. For this reason, AI should be treated as a helpful aid not a substitute for basic learning. Both teachers and students need to maintain a proper balance between traditional problem-solving methods and the use of modern technological tools.

The future of mathematics with AI is bright and promising. Intelligent systems will continue to support mathematical discoveries, simplify complex computations and make learning more effective. With responsible use, AI can inspire creativity, deepen understanding and encourage innovation among students and researchers.

In summary, AI is supporting and enhancing mathematics instead of replacing it. When human intelligence works together with advanced technology, mathematics becomes more practical, widely accessible and stronger in its applications.

To conclude, Artificial Intelligence is acting as a powerful partner to mathematics, not a substitute. The blend of human creativity and machine capability is shaping a future where mathematics is more engaging, useful and influential in solving real-world problems.

■ ■ ■



Artificial Intelligence in Mycology and Plant Pathology: Transforming Modern Agriculture

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Department of Botany

In the rapidly evolving world of science and technology, Artificial Intelligence (AI) has emerged as a revolutionary tool with the potential to significantly impact fields like mycology—the study of fungi—and plant pathology, which focuses on plant diseases. These disciplines are vital for ensuring crop health, food security, and sustainable agricultural practices.

Harnessing AI for Fungal Identification and Mycological Research

Fungi are an incredibly diverse group of organisms that play essential roles in ecosystems, from decomposing organic matter to forming symbiotic relationships with plants. However, some fungi are pathogenic and can cause devastating diseases in crops, leading to substantial economic losses. Traditional methods of identifying fungal species involve microscopic examination and genetic analysis, processes that can be time-consuming and require specialized expertise.

AI introduces advanced image recognition technologies that can analyse photographs of fungi with remarkable accuracy. Machine learning algorithms trained on extensive datasets of fungal images can distinguish between different species, including harmful pathogens and beneficial fungi. This capability accelerates research, aids in ecological studies, and provides quick, reliable identification essential for managing fungal outbreaks effectively.

AI-Driven Plant Disease Detection and Management

Detecting plant diseases early is crucial for minimizing crop damage and ensuring food production. Conventional diagnosis often depends on manual inspection by experts, which can be impractical for large fields or remote locations. AI-based systems leverage advancements in computer vision and machine learning to overcome these challenges.

By training on thousands of images depicting healthy and diseased plants, AI models can recognize symptoms such as spots, discoloration, mold, or wilting. Farmers and agronomists can use smartphone cameras or drones equipped with AI-enabled software to

monitor crops in real-time. These systems provide instant diagnoses, enabling timely interventions like targeted pesticide application or removal of infected plants, thereby reducing chemical use and preventing disease spread.

Integration of Data and Predictive Analytics

Beyond immediate detection, AI facilitates the integration of various data sources—weather patterns, soil conditions, crop history—to develop predictive models. These models can forecast potential disease outbreaks before symptoms become visible, allowing farmers to adopt preventive measures proactively. Such approaches contribute to sustainable farming by optimizing resource use and enhancing crop resilience.

Future Prospects and Challenges

The continuous development of AI technologies promises even more sophisticated tools for mycology and plant pathology. Future innovations may include automated systems for pathogen genome analysis, personalized treatment recommendations, and the creation of disease-resistant crop varieties through AI-guided genetic editing.

However, challenges remain, such as ensuring data accuracy, accessibility of technology for small-scale farmers, and addressing ethical considerations related to data privacy and ecological impacts. Overcoming these hurdles will be essential for maximizing AI's benefits in agriculture.

Conclusion -

Artificial Intelligence is revolutionizing the way scientists and farmers understand and manage fungi and plant diseases. By enabling rapid diagnosis, precise interventions, and predictive analytics, AI contributes significantly to sustainable agriculture, food security, and environmental conservation. As this technology advances, it holds the promise of transforming agricultural practices worldwide, ensuring a healthier and more resilient future.



महाविद्यालयीन ग्रंथालयात मानवतेच्या उन्नतीसाठी कृत्रिम बुद्धिमत्ता

► डॉ. मनोज पुं. वाघमारे
ग्रंथपाल

स्मार्ट ग्रंथालय उज्ज्वल भविष्याची गुरुकिल्ली

कृत्रिम बुद्धिमत्ता (Artificial Intelligence AI) हे आधुनिक तंत्रज्ञानाचे महत्वाचे साधन बनले आहे. आज शिक्षण, संशोधन आणि माहिती मिळविण्याच्या प्रत्येक क्षेत्रात AI चा वापर वाढत आहे. महाविद्यालयीन ग्रंथालयात AI चा वापर विद्यार्थी, शिक्षक आणि संशोधकांसाठी अधिक जलद, सोयीस्कर आणि गुणवत्तापूर्ण सेवा उपलब्ध करून देत आहे.

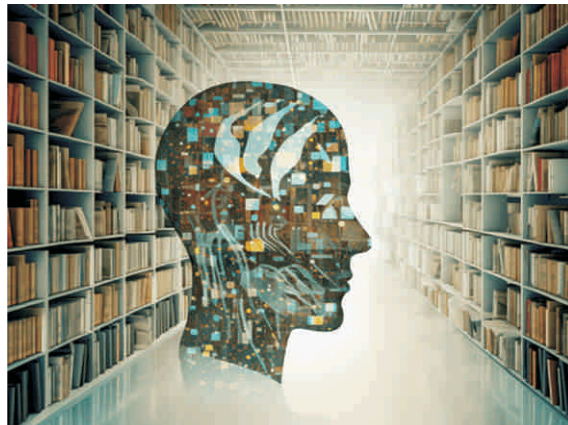
ग्रंथालय हे कोणत्याही महाविद्यालयाचे ज्ञानकेंद्र असते. येथे पुस्तके, नियतकालिके, संशोधन लेख, ई-पुस्तके आणि विविध डिजिटल माहिती स्रोत उपलब्ध असतात. आजच्या डिजिटल युगात विद्यार्थ्यांना कमी वेळेत अचूक माहिती हवी असते. AI मुळे ही गरज प्रभावीपणे पूर्ण करता येते. AI चा सर्वात महत्वाचा उपयोग म्हणजे स्मार्ट पुस्तक शोध प्रणाली. विद्यार्थी साध्या भाषेत प्रश्न विचारून किंवा कीवर्ड टाईप करून काही क्षणांत आवश्यक पुस्तक, संशोधन लेख किंवा ई-संसाधन शोधू शकतात. त्यामुळे वेळेची बचत होते आणि अभ्यास अधिक परिणामकारक बनतो. AI विद्यार्थ्यांच्या आवडी आणि वाचनाच्या सवयी लक्षात घेऊन योग्य पुस्तके व संदर्भ साहित्य सुचवते. त्यामुळे विद्यार्थ्यांना नवीन विषयांची माहिती मिळते आणि वाचनाची आवड वाढते.

AI आधारित चॅटबॉट ही ग्रंथालयातील आणखी एक उपयुक्त सुविधा आहे. ग्रंथालयाची वेळ, पुस्तकांची उपलब्धता, सदस्यत्व, पुस्तक नूतनीकरण, ई-संसाधनांचा वापर अशा अनेक प्रश्नांची उत्तरे विद्यार्थ्यांना कोणत्याही वेळी मिळू शकतात. ग्रंथालय व्यवस्थापनातही AI मोठी मदत करते. पुस्तकांचे वर्गीकरण, नोंदी ठेवणे, पुस्तकांची परतफेड तपासणे, मुदत संपल्याची सूचना पाठवणे, अहवाल तयार करणे यांसारखी कामे जलद आणि अचूकपणे करता येतात. त्यामुळे ग्रंथपालांना विद्यार्थ्यांना मार्गदर्शन करण्यासाठी अधिक वेळ देता येतो. डिजिटल ग्रंथालयांमध्ये AI मुळे माहिती शोधणे अधिक सोपे झाले आहे. विविध भाषांतील माहितीचे भाषांतर, मजकूराचे ध्वनीमध्ये रूपांतर, दिव्यांग विद्यार्थ्यांसाठी सुलभ सेवा आणि संशोधनासाठी आवश्यक माहिती पटकन उपलब्ध करून देणे या सुविधा शिक्षण अधिक सर्वसमावेशक बनवतात.

तथापि, AI चा वापर जबाबदारीने करणे आवश्यक आहे. गोपनीयता, नैतिकता, माहितीची सत्यता आणि मानवी मूल्ये जपणे तितकेच महत्वाचे आहे. विद्यार्थ्यांनी AI कडून मिळालेली माहिती पडताळून वापरावी आणि ग्रंथपालांचे मार्गदर्शन घ्यावे. AI हे मानवी बुद्धिमत्तेचे पूरक साधन आहे, पर्याय नाही. भविष्यातील ग्रंथालये ही पारंपरिक ज्ञानसंपदा आणि आधुनिक तंत्रज्ञान यांचा सुंदर संगम असतील. पुस्तके, डिजिटल माहिती, संशोधन आणि ख आधारित सेवा यांमुळे ग्रंथालये अधिक आधुनिक, विद्यार्थी-केंद्रित आणि ज्ञानसमृद्ध बनतील.

शेवटी असे म्हणता येईल की, कृत्रिम बुद्धिमत्ता ही मानवतेच्या कल्याणासाठी एक प्रभावी साधन आहे. महाविद्यालयीन ग्रंथालयात तिच्या योग्य वापरामुळे ज्ञान सर्वासाठी अधिक सहज उपलब्ध होते, संशोधनाला चालना मिळते, वेळेची बचत होते आणि विद्यार्थ्यांच्या शिक्षणाचा दर्जा उंचावतो. मानवी मूल्यांसह वापरलेली AI हीच भविष्यातील स्मार्ट आणि समृद्ध ग्रंथालयांची खरी ओळख ठरेल.

ज्ञान सर्वासाठी, तंत्रज्ञान मानवतेसाठी आणि ख उज्ज्वल भविष्यासाठी.





राजर्षी शाहू सायन्स कॉलेज येथे वृक्षारोपण

राजर्षी शाहू सायन्स कॉलेज येथे वृक्षारोपण कार्यक्रमाचे उद्घाटन झाले. यावेळी अनेक विद्यार्थ्यांनी सहभाग घेतला. यावेळी अनेक वृक्षारोपण करण्यात आले.

वृक्षारोपणाने प्रा. उत्तरा जगताप याचा वाढादेवस साजरा

नमस्कार अमरावती
चांदूर रेल्वे (ठा. प्र.) दि. ८ :
पुष्पगोष्ठीकेंद्र अतिथ्यावार्ता होऊनकरी तीर्थ
अभिधान व टाठ कोटी वृक्ष लागवड या
कार्यक्रमांतर्गत विविध कलत्र, राष्ट्रीय सेवा
वैद्यनाथ व वृद्ध संत यांच्या संयुक्त विद्यमाने
अजून विविध वृक्षारोपण कार्यक्रमांचे आयोजन
प्रा. उत्तरा जगताप यांच्या ६० व्या
कांदीवर्षाविशील महाविद्यालय परिषदेत
त्यांच्या हस्ते वृक्षारोपण करण्यात आले.



प्रा. उत्तरा जगताप यांच्या ६० व्या कांदीवर्षाविशील महाविद्यालय परिषदेत त्यांच्या हस्ते वृक्षारोपण करण्यात आले.

प्रा. उत्तरा जगताप यांच्या ६० व्या कांदीवर्षाविशील महाविद्यालय परिषदेत त्यांच्या हस्ते वृक्षारोपण करण्यात आले.

राजर्षी शाहू कॉलेज में करिअर संसद स्थापित

छात्रो ने ली
मंत्रीपद की राफथ



राजर्षी शाहू महाविद्यालयाच्या करिअर कट्टाचे आयोजन
करिअरच्या संधीबाबत विद्यार्थ्यांना मार्गदर्शन

अतुल विद्या मंदिर वर्धा यांच्यातर्फे वृद्धाश्रमाला धान्य व वृक्ष दान



ता.प्रतिनिधी / १७ जुलै
चांदूर रेल्वे : अतुल विद्या मंदिर
वर्धा यांच्या संस्थापक अध्यक्ष स्व.
प्रा. बाल्मीक राव उर्फ अण्णासाहेब
जगताप यांच्या जयंतीनिमित्त राजर्षी
शाहू सायन्स कॉलेज चांदूर रेल्वे
येथील स्व. अतुल जगताप स्मृती
सभागृहा मध्ये संस्थेच्या अध्यक्ष
सी. प्रा. उत्तराजगताप यांनी
स्व.अण्णासाहेब जगताप यांच्या
जयंतीने दत्त वृक्ष दान

असमा दैवा जयती है। ऐसा
प्रतिपद प्रभाव है। बड़े-बड़े
जैसे हैं। हमारे पास भी है।

असमा दैवा जयती है। ऐसा
प्रतिपद प्रभाव है। बड़े-बड़े
जैसे हैं। हमारे पास भी है।

राजर्षी शाहू सायन्स कॉलेज येथे संस्कृत सप्ताह उत्साहात साजरा



जास्त विद्यार्थ्यांनी सदर स्पर्धेमध्ये स्पर्धेमध्ये एकूण १२ विद्यार्थ्यांनी

जनमाध्यम

राष्ट्रीय क्रीडा दिवस उत्साहात

चांदूर रेल्वे/कातार
राजर्षी शाहू सायन्स
महाविद्यालयाच्या प्रांगणात राष्ट्रीय
क्रीडा दिवस मोठ्या उत्साहात
साजरा करण्यात आला. हा दिवस
हॉकीचे जादूगार मेजर ध्यानचंद
यांच्या जन्मदिनानिमित्त साजरा
केला जातो. यावेळी मेजर ध्यानचंद



प्र. ए. एन. खान, प्रदीप तें
कुणाल सिंगलवार, प्रवीण
आणि प्रकाश माहुरे यांची
उपस्थिती होती. कार्यक्रमात
विद्यार्थ्यांनी आणि प्राध्याप
उत्साहाने सहभाग घेतला.
क्रीडा क्षेत्राला श्रद्धांजली देणं
दृष्टीने विविध उपक्रमांचे आयोजन

देशोन्नती

राजर्षी शाहू महाविद्यालयात मॉडेल मेकिंग स्पर्धा

भौतिकशास्त्र विभागाचे आयोजन: ६४ विद्यार्थ्यांनी बनविले विविध मॉडेल

देशोन्नती वृत्तसंकलन
चांदूर रेल्वे : येथील राजर्षी
शाहू विज्ञान महाविद्यालयात
भौतिकशास्त्र विभागात सर
सी. डी. रमन फिजिक्स
सोसायटी २०२५-२६ च्या वतीने
मॉडेल मेकिंग स्पर्धा घेण्यात
आली. यामध्ये महाविद्यालयाच्या
६४ विद्यार्थ्यांनी भाग घेवून विविध
प्रकारचे सर्जनशील आणि
नाविन्यपूर्ण कार्यकारी तसेच
नॉन-विकिंग मॉडेलस सादर केले.
या कार्यक्रमाचे मुख्य अतिथी
प्राचार्य डॉ. पराग वडनेरकर व
परीक्षक आदर्श महाविद्यालय,
धामगंगाव रेल्वेचे प्रा. डॉ.
एस. जी. विद्येले उपस्थित होते.
१६ रातीमध्ये प्रथम तिथी व



तयार करण्यासाठी एक विशिष्ट
विषय दिला गेला होता. या स्पर्धेत
प्रथम क्रमांक किश अलोने
(बी. एस्सी. प्रथम वर्ष), राहिल
शेख (बी. एस्सी. प्रथम वर्ष),
सव्यद नुजैद (बी. एस्सी. प्रथम
वर्ष), सौरभ गुप्ता (बी. एस्सी.
प्रथम वर्ष) यांनी पटकविले, तर
द्वितीय क्रमांक वैदेही महल्ले
(बी. एस्सी. द्वितीय वर्ष) दहली

(बी. एस्सी. द्वितीय वर्ष) यांनी
मिळविले. प्रथम क्रमांक
विजेत्यांना १० हजार व द्वितीय
क्रमांक विजेत्यांना ५ हजारचे
रोख पारितोषिक देण्यात आले.
या कार्यक्रमाचे संचालन डॉ.
रोशनी भगत यांनी केले, तर
आभार प्रतीक्षा टाळे यांनी मानले.
या स्पर्धेचे आयोजन भौतिकशास्त्र
विभागामध्ये प्रा. एस. जी. विद्येले

राजर्षी शाहू महाविद्यालयात पर्यावरणपूरक गणेश विसर्जन

नमस्कार अमरावती
चांदूर रेल्वे (ठा. प्र.) दि. ७ : येथील
राजर्षी शाहू विज्ञान महाविद्यालयाचा सिनेचर कलत्र
व गणित विभागाच्या संयुक्त सहकार्याने महाविद्यालयात
पर्यावरणपूरक गणेशाची स्थापना करण्यात आली
होती. दहा दिवसांनंतर त्याचे महाविद्यालयातच
विसर्जन करण्यात आले.
गणेशोत्सवनिमित्त वरिष्ठ व कनिष्ठ महाविद्यालयीन
विद्यार्थ्यांकरीता मोठेक सजावट स्पर्धा व पर्यावरण
पूरक गणपती या विषयावर रिलस स्पर्धा, शालेय
विद्यार्थ्यांकरीता सुंदर हस्तकला स्पर्धा, श्री गणेश
चित्राचे रामराम स्पर्धा घेण्यात आल्या. त्यासाठी डॉ.
रेखा केने, डॉ. संपदा पावकर, प्रा. सोनू देगमूख
यांनी परिश्रम घेतले. पर्यावरणपूरक गणेशोत्सवाकरीता
प्राचार्य डॉ. पराग वडनेरकर यांच्या मार्गदर्शनात
मुख्याध्यापक प्रदीप तळोकर, कुणाल सिंगलवार,
सिनेचर कलत्रचे समन्वयक डॉ. गजानन संतापे
आदींसह राजर्षी विज्ञान महाविद्यालय व अतुल जगताप
विद्यालय व कनिष्ठ महाविद्यालय तसेच राजर्षी शाहू
इंग्लिश स्कूलचे सर्व प्राध्यापक, शिक्षक, शिक्षकेतर
कर्मचारी सहभागी झालेले होते.



विकसित भारत : 2047 या विषयावर व्याख्यान



चांदूर रेल्वे. राजर्षी शाहू
सायन्स कॉलेज येथे राष्ट्रीय सेवा
योजना द्वारे स्वच्छता ही सेवा
अभियान 2025 अंतर्गत विकसित
भारत : 2047 या विषयावर
व्याख्यान आयोजित करण्यात
आले होते. राष्ट्रीय सेवा योजना
स्थापना दिनाचे औचित्य साधून
विकसित भारत- 2047 या
विषयावर व्याख्यान आयोजित

आलेले सर्व अनुभव तसेच
समाजाप्रती सेवा, निष्ठा, प्रेम,
आपुलकी व राष्ट्रीय सेवा योजनेचे
मुख्य उद्दिष्ट आपल्या अनुभवातून
अधोरेखित केले. विकसित भारत
चा विषयावर विद्यार्थ्यांना
मार्गदर्शन करताना क्षिप्राताई
मानकर म्हणाल्या भारतासाठी हा
सुवर्णकाळ आहे. जेव्हा देश एक
मोदी झेप घेणार आहे. एकविसावे
शतक हे भारताचे आहे, गेल्या
दहा वर्षात भारताने ज्या
आत्मविश्वासाने जागतिक
पायळीवर अतिशक्तिता असताना,
ज्या संधी साधल्या, जो लौकिक
प्राप्त केला, त्या उल्लेखनीय अशाच
पद्धतीने या वर्षातही आपण

वार्षिक अहवाल



Department of Zoology

The Department of Zoology, Rajarshee Shahu Science College, Chandur Railway, successfully organized various academic, co-curricular, and extension activities during the academic year 2025–2026 with the objective of enhancing scientific knowledge, environmental awareness, practical learning, and the overall personality development of students.

The academic activities of the department commenced with the celebration of International Tiger Day on 29 July 2025. A Group Discussion on "Ways of Conservation of Tiger" was organized under the guidance of Dr. Mahesh Chikhale, Head of the Department of Zoology, in the presence of Dr. G. B. Santape, Associate Professor. Students actively participated in the discussion and expressed their views on tiger conservation, habitat protection, biodiversity preservation, and the role of technology and public participation in wildlife conservation. The programme successfully created awareness about the importance of protecting endangered species.

To encourage student participation in departmental activities, the Zoological Society (2025–2026) was inaugurated by Principal Dr. P. R. Wadnerkar in the presence of Dr. Mahesh Chikhale, Head of the Department, and Dr. G. B. Santape, Professor In-charge of the Society. On this occasion, Ms. Pradnya Jadhav (B.Sc. II Year) was declared the President of the Zoological Society, and the executive committee was announced. The Principal motivated students to actively participate in the society's programmes, which aim to promote scientific knowledge, leadership qualities, environmental awareness, and practical learning through guest lectures, seminars, workshops, field visits, educational tours, exhibitions, and biodiversity conservation activities.

The department celebrated Wildlife Week – 2025 from 1st to 7th October 2025. The programme was inaugurated by Principal Dr. P. R. Wadnerkar in the presence of Dr. Mahesh Chikhale and Dr. G. B. Santape. During the week, a Wildlife Photo Exhibition was organized to create awareness about wildlife conservation and biodiversity. A Drawing Competition was also conducted for the students of Rajarshee Shahu English School. Ms. Manaswi G. Suryawanshi (Class VIII) secured the First Prize, Ms. Shraddha Gawali (Class VIII) won the Second Prize, and Ms. Sonakshi Gadpayle (Class VIII) received the Third Prize. The celebration successfully promoted environmental awareness among school and college students.

To enhance students' communication skills, the department organized a Guest Lecture on "Skill of Presentation" on 15 April 2026. The lecture was delivered by Dr. Gajendrasingh Pachlore, Vinayak Vidnyan Mahavidyalaya, Nandgaon Khandeshwar, in the presence of Dr. Mahesh Chikhale and Dr. G. B. Santape. The resource person explained the importance of effective presentation skills, scientific communication, use of visual aids, and confidence-building techniques. The session was highly interactive and beneficial for students preparing seminars, project presentations, and future professional careers.

The department also organized an Educational Visit to the Government Rural Hospital, Chandur Railway, under the guidance of Dr. Mahesh Chikhale. The visit provided students with practical exposure to various physiological and laboratory investigations used for disease diagnosis. Hospital experts demonstrated procedures such as blood tests, urine analysis, blood pressure measurement, blood sugar estimation, and other routine diagnostic tests. The visit enabled students to understand the significance of laboratory investigations in healthcare and strengthened their practical knowledge.

Throughout the academic year, the Department of Zoology remained committed to providing quality education through classroom teaching, practical training, academic enrichment programmes, environmental awareness activities, and community-oriented initiatives. The various programmes organized by the department helped students develop scientific temperament, practical skills, communication abilities, leadership qualities, and environmental responsibility.

► **Dr. Mahesh Chikhale**
Professor and Head
Department of Zoology



Arts, Music and Cultural Cell

Celebration of Shahu Maharaj Jayanti -

Arts, Music and Cultural Committee Celebrate 151th Birth Anniversary of the Rajarshee Shahu Maharaj on 26th of June 2025. The Day was also Observed as Social Justice day. The program was initiated with the tribute to Idol of Rajarshee Shahu Maharaj and lighting the lamp by the hands of Hon Principal Dr.P.R.Wadnerkar. All the teaching and non teaching staff and Students were present at this moment. To showcase the life history of Rajarshee Shahu Maharaj, a photo presentation was also displayed to the students. To gain knowledge about the great legend Arts, Music and Cultural committee Organized the Quiz competition for the students of UG, Junior college and High School Students. Students actively participate in the competition. The program ended with the vote of Thanks.

Teachers Day Program -

Teacher's Day is celebrated to honour and recognize the hard work and dedication of teachers. Teachers are not just educators; they are mentors, guides, and friends who help us grow and learn. They work tirelessly to ensure that we receive a good education and become better individuals. We celebrate Teacher's Day on the 5th September each year. This date was chosen because it marks the birthday of Dr. Sarvepalli Radhakrishnan, a great teacher and the second President of India. Dr. Radhakrishnan believed that teachers should be honored and respected, and his birthday is now a day to show our gratitude. On this day students organized the self governance programme. Students from B.Sc-I, II & III participate in this. They taught the classes for their colleagues. Best teacher prizes were also taken from it. Later on the program was followed with a photo puja of the Sarvapalli Radhakirshan. Felicitation of the teachers was also taken by offering the sapling. Later on tree plantation program was also done in college campus. The president of the program was Dr. P.R.Wadnerkar Principal Rajarshee Shahu Science College Chandur Rly, guest of honour Mr.S.A.Wani, and all the teaching staff were present at this moment. The principal addressed the gathering that students must obey their mentors, their guide.

Gandhi Jayanti and Lal Bhadur Shastri Jayanti -

Mahatma Gandhi Jayanti and Lal Bahadur Shastri Jayanti is celebrated nationwide on October 2nd to honor Mahatma Gandhi birth 1869 and former PM Lal Bahadur Shastri (birth 1940). The Day promotes Gandhian Values of truth and non-Violence alongside Shastri's ideals of integrity and the "Jai Jawan, Jai Kisan" slogan, featuring floral tributes, educational activities and cleaning drives. The celebration began with the photo puja and light lamping ceremony.

Students and all teaching and non teaching staff pay floral tributes.

The day is marked by cleanliness drives (Swachhata Abhiyan), tree planting (planting of saplings), and community service reflecting Gandhi's emphasis on sanitation and self-reliance.

Program emphasizes Gandhi's non-violence (Ahimsa) and Satyagraha, while remembering Shastri's leadership during the 1965 Indo Pak war.

The Program was presided by Principal Dr P.R.Wadnerkar, IQAC Coordinator Mr.S.A.Wani. The

Program was organized by Dr Minal.J.Keche Associate Professor Department of Botany.

Tribute to Sant Gadge Baba -

Rajarshee Shahu Science College pays tribute to Sant Gadge Baba on the occasion of his 69 th death anniversary, organized by the Arts, Music, and Cultural Committee.

Homage Paid to Sant Gadge Baba on His 69th Death Anniversary by the Arts, Music, and Cultural Committee at Rajarshee Shahu Science College. The Arts, Music, and Cultural Committee of the local Rajarshee Shahu Science College paid homage to the great social reformer, Sant Gadge Baba, on the occasion of his 69 th death anniversary.

On behalf of the committee, this program was organized with the specific objective of acquainting students with Sant Gadge Baba's thoughts and the significant work he undertook for the betterment of society. An essay competition focusing on the life and work of Sant Gadge Baba was organized for students from the Arts and Science Junior College and the Late Atul Jagtap Secondary College. Students participated enthusiastically in the essay competition, writing on the assigned topics. In their essays, they clearly articulated the nature of the pivotal social work performed by Sant Gadge Baba during his lifetime. This competition was conducted to instill in the students an understanding of the messages of humanity, honesty, and cleanliness championed by Sant Gadge Baba. Additionally, students from the Convent School participated actively in a costume competition held as part of the event. The essay and costume competitions were organized with the specific aim of ensuring that the significance of the life of this great luminary, Sant Gadge Baba, resonates deeply within the hearts and minds of everyone. Students participated in these competitions in large numbers. The program was presided over by the College Principal, Hon. Dr. Parag Wadnerkar. Also present were the Headmaster of the Late Atul Jagtap Secondary College, Prof. Pradip Talokar; the Headmistress of Rajarshee Shahu English School, Mrs. Varsha Bhagat the IQAC Coordinator, Mr. Surendra Wani; and the Coordinator of the Arts, Music, and Cultural Committee, Prof. Dr. Minal Keche. In his presidential address, the Principal provided the students with profound and invaluable insights into the social work performed by Sant Gadge Baba throughout his life. Furthermore, Dr. Roshani Bhagat and Dr Mamta Palaspagar served as judges for the costume competition. Dr. [Name] was also present at the event. Ms. Minal Keche and Co-coordinator Dr. Pachakwade put in diligent efforts for the event. The entire faculty of the college was present at the program.

Shivjayanti Celebration -

Shivajayanti was celebrated with great enthusiasm and patriotic spirit at our College on 19 th February 2026, to mark the birth anniversary of Chhatrapati Shivaji Maharaj, the founder of the Maratha Empire and a symbol of bravery, leadership, and good governance. The main objective of organizing this program was to inspire students by remembering the life, values, and achievements of Shivaji Maharaj and to create awareness about his contribution to Indian history.

The Program began with the respectful garlanding of the statue of Chhatrapati Shivaji Maharaj by faculty members. Floral tributes were offered and the ceremony started in a dignified manner. A beautifully designed rangoli, floral decoration at the entrance welcomed guests and



participants and reflected the cultural spirit of the celebration. The inauguration created a respectful and inspiring atmosphere for the rest of the event.

The main celebration was conducted in the late Atul Jagtap Memorial Hall, where students and faculty gathered in large numbers. A presentation on the life and achievements of Shivaji Maharaj was displayed on the screen, highlighting his courage, military strategies, administrative skills, and dedication to relevance in today's times.

The session included short speeches by students and staff, where they spoke about Shivaji Maharaj. The event successfully encouraged students to learn from his values and apply them in their personal and academic life.

The Shivjayanti celebration was a grand success and proved to be both educational and inspiring. It strengthened students' knowledge about history and motivated them to follow the ideals of courage, honesty and leadership shown by Chhatrapati Shivaji Maharaj. The program concluded with a vote of thanks expressing gratitude to all faculty members, participants and organizers who contributed to making the celebration meaningful and memorable.

Dr. Babasaheb Ambedkar Jayanti Celebration -

Dr. Babasaheb Ambedkar Jayanti, also known as Bhim Jayanti is an annual observance in India that commemorates the birth anniversary of Dr.B.R.Ambedkar. This day is celebrated on April 14 th every year to honor the contribution and legacy of Dr.Ambedkar, who played a pivotal role in the social, political, and economic transformation of India. Dr. Bhimrao Ramji Ambedkar, Born on April 14 th, 1891, in Mhow Madhya Pradesh, was a prominent Indian jurist, social reformer, economist, and political leader. He is most renowned for his role in drafting the Indian Constitution and his effort to uplift the marginalized and oppressed section of society, particularly the Details, also known as scheduled caste-stay.

Ambedkar Jayanti is a day of reflection, remembrance, and celebration of Dr. B.R. Ambedkara's remarkable contribution to shaping modern India. His dedication to social justice, human rights and equality remains an inspiration to people across the country and beyond. By commemorating this day society reaffirms its commitment to creating a just, inclusive and harmonious future for all. Highlighting this Arts, Music and cultural committee Organized the invited talk of Dr.Pravin Sardar Assistant Professor Department of Botany. He enlightened the life journey of Dr. B.R.Ambedkar and his contribution to Women's Social and legal Development. All the faculty members and students present at this moment.

► **Dr. Ashwin P. Pachkawade**
Co-Convenor

► **Dr. Minal J. Keche**
Convenor

CAREER KATTA REPORT

During the academic session 2025–2026, the Career Katta Cell of RajarshreeShahu Science College, Chandur Railway, organized various activities focusing on career guidance, leadership development, skill enhancement, and social responsibility. Students actively participated in Career Sansad programmes, expert lectures, competitions, training sessions, and community initiatives conducted under the Career Katta scheme.

Establishment of Student Career Sansad–2025 and Oath Ceremony -

On the occasion of World Youth Skills Day (15 July 2025), the college established the Student Career Sansad–2025 along with an oath-taking ceremony. A total of 15 student ministries were formed to develop leadership qualities, teamwork, and decision-making skills among students. The programme included the administration of the oath, presentation of previous activities by students, and discussions on the importance of skill-based education and leadership development.



Guidance Session on Career Opportunities in Assam Rifles -

A guidance session on 1 July 2025 was organized to create awareness regarding career opportunities in defence services. The session was conducted by the college alumnus Mr. Gaurav Bhasme (Assam Rifles), who provided valuable guidance on opportunities in Assam Rifles, CISF, and CAPF, along with preparation strategies for competitive examinations. A total of 54 students participated in the programme.

Student Induction Programme -

Information regarding the Career Katta scheme, activities, and opportunities was provided to students during the Student Induction Programme, encouraging them to actively participate in career-oriented and skill-development initiatives.

Fund Collection Initiative for Marathwada Flood Victims

A fund collection drive was organized to support flood-affected people in Marathwada and to inculcate social responsibility among students. Students actively created awareness through banners, posters, and outreach activities in nearby areas. A total amount of ₹14,748/- was collected through online and offline contributions and submitted through appropriate channels. The initiative helped students develop values such as teamwork, compassion, leadership, and social commitment.

Participation in the State-Level Student Career Parliament Convention

Students of Rajarshree Shahu Science College, Chandur Railway, actively participated in the State-Level Student Career Parliament Convention held from 3–7 January 2026 at Sharadabai Pawar Women's College, Baramati. The convention focused on the holistic development of students in accordance with the New Education Policy and included expert lectures, panel discussions, training programmes, special sessions such as Swayamsiddha, and a Faculty Development Programme on Artificial Intelligence for teachers.

A total of 11 students participated in the programme. Ku. Saniya Sheikh secured a place



among the top five participants and received a cash prize of ₹25,000/-, while Ku. Sakshi Jichkar and Ku. Pratiksha Patane actively contributed at the district level.

Career Sansad Activities and Meetings-

Regular Career Sansad meetings were conducted throughout the academic session to discuss various activities, skill-development programmes, and future initiatives. Students also participated in district-level Career Sansad meetings.

As part of experiential learning, students conducted interviews with distinguished officers, including:

- Res. Sharad Nivrutti (PSI, Chandur Railway)
- Res. Pooja Matode (Tehsildar, Chandur Railway)

These interactions provided valuable insights into public service and administrative careers.



Achievements in Career Katta Competitions (2025-2026)

Rajarshee Shahu Science College achieved remarkable success in various district, divisional, and state-level Career Katta competitions.

Institutional Achievements

- First Prize – Best District-Level Career Parliament
- First Prize – Solar Awareness Initiative
- Second Place – AWS Career Tour (Amravati District)
- Second Prize – Best College Coordinator Award
- Recognition for contribution to the Marathwada Flood Relief Initiative

Solar Awareness Programme

- First Place at the District Level
- Fourth Place at the State Level
- Ku. Pratiksha Patane secured Second Prize at the Amravati District Level

Reels Competition - Seven reels were uploaded by students on the Career Katta MITSC Portal. At the district level:

- Ku. Sakshi Jichkar secured Second Place
- Ku. Pradnya Jadhav secured Third Place

Student Achievements

- Ku. Saniya Sheikh received a cash prize of ₹25,000/- and was selected as the Best Career Sansad Representative.
- Ku. Saniya Sheikh represented the Amravati Division in Delhi under the Administrative Services Interview Initiative.
- Certificates for consistent participation in the 90-day activity programme were awarded to : Ku. Sakshi Jichkar, Ku. Saniya Sheikh, Ku. Shravani Natal, Ku. Samiksha Vithole

All Career Katta activities during the academic session 2025-2026 were conducted under the guidance of Dr. P. R. Wadnerkar, Principal, with the support of Prof. S. A. Wani, IQAC Coordinator & all the faculty members and non-teaching staff. The active participation of students in leadership, social, and skill-development activities contributed significantly to their holistic development and career preparedness.

► **Dr. Mamta S. Palaspagar**
Career Katta Coordinator

Department of Botany

The Department of Botany places its heartfelt thanks to honourable management for providing us encouragement all the way to full fill the cause of education. I also wish to express my gratitude to the Honourable Principal, for his minute-to-minute guidance with his new and innovative ideas to enrich the teaching in subjects. As per the aim of the department and annual planning department was always ready to fulfil the need and academic enrichment of students. Accordingly this year also the department of botany organized various programs for the students as follows.

Inauguration of Botanical Society -

Formal inaugural Ceremony of the Botanical Society (2025-2026) and 'Botanica' Display Board was held on 16th September 2025 at the Botany department. The Program was inaugurated by the hands of Hon Principal of the College Dr. P. R. Wadnerkar and guest of Hon. Dr. Sachin Tippat sir. At this moment an introductory speech was delivered by the head of the department of Botany. She announced the office barrier of students formed under the Botanical Society and appealed to the students for their active involvement and cooperation for the activities to be carried out during the session.

Eco Friendly Rakhi Competition:

As per every year the department of Botany organized Eco-Friendly rakhi competition for the Students. The main objectives behind the program is to make students aware about the importance of nature conservation and to propagate the values of natural material which is easily degradable and will not cause pollution. It is a small initiative to celebrate eco-friendly festivals. Competition was open for the students of Convent, High school, junior and for the senior college. Huge participation of the students was recorded for the Rakhi making Competition. Very eco-friendly material was used by the students for the making of Rakhi such as flowers, leaves, seeds, cereals, pulses, spices and also ayurvedic plants materials. Two prizes from each category were awarded for best Rakhi's. The competition was inaugurated by the hands of Hon Dr. P. R. Wadnerkar Principal Rajarshree Shahu Science College, IQAC Coordinator Mr. S. A. Wani, H. M Mr. Pradip Talokar sir and all the Heads of respective departments were present at the moment. Convenor of the program Dr. M. J. Keche and Co-convenor Dr. P. R. Sardar, Dr. S. P. Patharkar, and lab assistant Mr. Bhart Uike took efforts for the success of the program.

Seed Bank Collection:

The Department of Botany, Rajarshree Shahu Science College, Chandur Railway, organized a Seed Bank Extension Activity on 26th August 2025. The program was successfully conducted under the guidance of Convener Dr. P. R. Sardar, Head of Department Dr. M. J. Keche, and Co-convener Dr. S. P. Patharkar.

During the activity, students actively participated by collecting various varieties of seeds from local sources. These seeds were systematically stored in the department as part of the seed bank establishment process. The initiative aimed to create awareness among students about the



importance of biodiversity conservation, sustainable agriculture, and preservation of genetic resources.

The program not only encouraged students to take responsibility in conservation practices but also provided them with practical knowledge of seed collection, identification, and preservation techniques. Such activities strengthen the bond between academic learning and environmental responsibility.

World Ozone Day -

On Eve of World Ozone Day 16th September 2025 department of Botany organized a guest lecture on the theme from "Science to Global Action". Topic of the guest lecture is Role of Students and Youth in Protecting the Ozone Layer. Dr. Sachin K.Tippat Head Department of Environmental Science, Shrimati Narsama College Kiran Nagar Amravati addressed the students on the various issues of Pollution and also the effect of the modern lifestyle on the environment. He interacts with the students on how to manage the daily routing without harming the environment so that we can take the proper measures for the protection of the Ozone layer.

President of the program was the Dr.P. R. Wadnerkar Principal Rajarshee Shahu Science College Chandur Rly addressed the students that the environment plays the crucial role in the health of the human being and its prime responsibility of the person to take preventive measure for the protection of the atmosphere, Guest of Honour Mr. S. A. Wani IQAC Co-Ordinator was present at this moment, Convenor of the Program was Dr.M.J.Keche Head Department of Botany Co-Convenor Dr.S.P.Patharkar Assistant Department of Botany, Dr.Pravin R.Sardar Assistant Professor Department of Botany take the efforts for the organization of the Program, Students from B.Sc-I, II, III was benefited by the program.

Farmers Awareness Program:

The Department of Botany and the National Service Scheme (NSS) at Rajarshee Shahu Science College, Chandur Railway, organized a guest lecture for farmers.

In Collaboration with the National Service Scheme (NSS), the Department of Botany organized a guest lecture in adopted village Dhanora Mahali. the department—on the topic of "Recent Technological Approaches to Fruit Crop Management and Floriculture." The primary objective of organizing this lecture was to familiarize farmers with new technologies applicable to agriculture. Recognizing that India is an agrarian nation, the Department of Botany organized this guest lecture as a small initiative to instill an understanding of the value and importance of technology for sustainable agriculture.

Dr. Neeraj Nishante and Dr. Mayur Gawande both Assistant Professors at Shri. Shivaji College of Horticulture guided students and farmers on how to utilize new technologies to achieve higher yields, even within limited land areas. The program was presided over by Dr. Meenal J. Keche, Associate Professor in the Department of Botany; Dr. Pravin Sardar, Assistant Professor in the Department of Botany, served as the Chief Guest; and Dr. G. B. Santape, Program Officer of the National Service Scheme, along with Co-officer Dr. R. N. Bhagat, were present on the occasion.

Institutional Visit

Department of Botany at Rajarshree Shahu Science College Organizes One-Day Institutional Visit.

As an integral part of their curriculum, the Department of Botany of Rajarshree Shahu Science College Organized a one-day institutional visit to the 'Shri Shivaji College of Horticulture' and the 'Shri Shivaji College of Agri Biotechnology' in Amravati. Institutional visits play a crucial role in bridging the gap between theoretical Classroom knowledge and its practical application in the real world. By providing students with on-site exposure to the field of research, such visits significantly enhance the quality of their learning experience. The students visited the sites to observe working principles firsthand, as well as the functioning and applications of equipment used in Molecular Biology; furthermore, they acquired knowledge regarding nursery techniques, plant breeding, and hydroponics (soil-less farming). Dr. Sheetal Dagwar, Assistant Professor at Shri Shivaji College of Horticulture, Amravati, guided the students on various aspects of nursery techniques—such as budding, grafting, cutting, and landscape designing. Meanwhile, Dr. Meera Thoke-Pande Assistant professor provided detailed information regarding various crops, greenhouses, polyhouses, and hydroponic systems. The students also visited various departments within Shri Shivaji College of Agri Biotechnology, where they gained insights into Molecular Biology, Biochemistry, Plant Tissue Culture, and the equipment associated with various research projects. Dr. A.N. Dange, Dr. Santosh Chikate, Assistant Professors at Shri Shivaji College of Agri Biotechnology, Amravati. Ms. Dipali Bharshakale provided the students with information regarding agricultural biotechnology and its applications in research. This educational tour was organized by Dr. Minal J. Keche, Associate Professor and Head of the Department of Botany at Rajarshree Shahu Science College, Chandur Railway; meanwhile, Dr. P.R. Sardar, Assistant Professor in the Department of Botany, extended his cooperation to ensure the smooth conduct of the visit. All about 27 students of second and third-year B.Sc. students participated in this visit. Dr. P.R. Wadnerkar, Principal of Rajarshree Shahu Science College, commended the students for the enthusiastic attitude they demonstrated towards this visit.

Guest Lecture:

The Indian Knowledge System IKS is important for offering the holistic solution to modern problems, fostering cultural identity, and driving innovation by integrating ancient wisdom like Ayurveda, Yoga, astronomy with contemporary needs promoting well-being, sustainability, ethical thinking and creating well-rounded individuals and self-reliant communities through its rich philosophical, scientific and artistic trade. One of the parts of IKS is ethnomedicinal plant knowledge which is an undistinguished part of the rich heritage of Ayurveda. It includes rare medicinal plants, identification and Pharmacological use of plants for curing various diseases.

IKS has made significant contributions to human knowledge and civilization. In the field of medicine, Ayurveda is a holistic system of medicine that has been practised for thousands of years. IKS has also made significant contributions to the fields of yoga, meditation, and spirituality.



In recent years, there has been a growing interest in IKS, both in India and around the world. This is due in part to a recognition of the limitations of modern science and technology, and a search for more holistic and sustainable approaches to development. IKS has much to offer the world in terms of its insights into the nature of reality, the human mind, and the relationship between humans and the environment. Ayurveda is an undistinguished part of Botany, emphasizing the importance of the subject, the Department of Botany organized the Guest lecture on the topic “Role of Ethanobotany in Ayurveda “ on the 25th September 2025. The lecture was delivered by Professor Dr. U. R. Kokate Head Department of Botany Arts Commerce and Science College Chikhaldhar. In her lecture she focused on the role of medicinal plants and their importance in the preparation of all types of the ayurvedic remedies. The president of the program was Dr. P. R. Wadnerkar, Principal Rajarshee Shahu Science College Chandur Rly , IQAC Coordinator Prof S. A. Wani was present at this moment. The programme was organised by the Dr. M. J. Keche Head Department of Botany, Dr.S.P.Patharkar and Dr.P.R.Sardar . The Program was attended by all the students of B.Sc-I,II,III.

The Department of Botany, Rajarshee Shahu Science College, Chandur Railway, successfully organized a guest lecture on “Commercial Utilization of Lower Plants: Bridging Science and Entrepreneurship” on 11 November 2025. The programme was organized with the objective of enhancing students’ knowledge about the applied and commercial aspects of lower plants and encouraging an entrepreneurial approach in biological sciences.

The guest lecture was delivered by Prof. Subham Sakhare, who shared valuable insights on the commercial utilization of lower plants and their importance in various industries. The programme was organized under the convener-ship of Dr. P. R. Sardar, with Dr. S. P. Patharkar as the co-convener. The programme was conducted in the august presence of Dr. M. J. Keche, Head of the Department of Botany, and Dr. P. R. Wadnerkar, Principal of the college, who motivated the students with their encouraging words and emphasized the importance of applied knowledge and innovation in science education.

During the lecture, Prof. Subham Sakhare explained the economic importance of lower plants such as algae, fungi, lichens, and bryophytes. He highlighted their applications in pharmaceuticals, agriculture, food industries, biotechnology, biofertilizers, and environmental management. Special emphasis was given to transforming scientific knowledge into entrepreneurial opportunities and self-employment ventures.

The session was interactive and informative, with active participation from students and faculty members. The lecture successfully bridged the gap between academic science and entrepreneurship, inspiring students to explore career opportunities beyond conventional paths.

► **Dr. Minal J. Keche**
Associate Professor & Head,
Department of Botany

Department of Chemistry

Inaugural Function of Chemical Society 2025-26

The Chemical Society for the academic year 2025–26 was inaugurated by the Department of Chemistry, Rajarshee Shahu Science College, Chandur Railway, on Thursday, 18th September 2025. The programme commenced with the traditional lighting of the lamp and garlanding of the portrait of Rajarshree Shahu Maharaj.

The event was graced by eminent dignitaries. The programme was presided over by Principal Dr. P. R. Wadnerkar. The Chief Guest for the function was Mr. S. A. Wani, Assistant Professor & Head, Department of Physics, and IQAC Coordinator. Other dignitaries present on the dais included Dr. A. D. Bansod, Associate Professor & Head, Department of Chemistry, and Dr. A. P. Thakare. Faculty members, supporting staff, and students of B.Sc. I, II, and III (Chemistry stream) also attended the function.

A warm floral welcome was extended to all dignitaries on the dais by the student committee members. The introductory remarks were delivered by Dr. A. D. Bansod, who also highlighted the objectives of the Chemical Society. He emphasized that the Society provides a platform for chemistry students to organize and participate in various academic and co-curricular activities throughout the year, including seminar competitions, quiz competitions, study tours, research projects, Avishkar, poster competitions, and National Science Day celebrations.

The Chemical Society was formally inaugurated by Dr. P. R. Wadnerkar, who also delivered the inaugural address. On this occasion, Dr. A. P. Thakare announced the newly selected office bearer members of the Chemical Society, who were felicitated by Dr. Wadnerkar.

The programme was efficiently anchored by Ms. Prakisha Patane, while the Vote of Thanks was proposed by Ms. Namdimi Gaijbiye.

Shastra Puja Dasara

The Department of Chemistry, Rajarshee Shahu Science College, Chandur Railway, organized Dasara Puja with devotion and enthusiasm. On this occasion, Shastra Puja of the laboratory equipment was also performed. The programme was presided over by the Principal, Dr. P. R. Wadhankar, who performed the puja in a traditional manner. The IQAC Coordinator, Prof. S. A. Wani, Dr. S. S. Padhen, Dr. A. P. Thakare, and other teaching faculty members were also present on the occasion. The programme was held in a spiritual and festive atmosphere in the presence of teachers and students.

Guest Lecture on Topic Electronic Displacement

The program was graced by distinguished guests Dr. P.R. Wadnerkar, Principal, as a Chairman for the program, Dr. Ram D. Isankar, Assistant professor, Govt. Vidarbha Institute of Science and Humanities, Amravati as Resource Person, Mr. S. A. Wani, IQAC Coordinator, Department of Physics, Dr. A. D. Bansod, Head Department of Chemistry,

Dr. S. S. Padhen, Assistant professor, Department of Chemistry and Dr. Amol Thakare Assistant professor, Department of Chemistry were grace the program.

The event began with portait of Rajarshee Shahu Maharaj was worshipped and esteemed Guest felicitated with Shall and bookey by Principal Dr. P. R. Wadnerkar also warm welcome of the dignitaries. Dr. A. D. Bansod delivered the introductory remark, while Dr. S. S. Padhen presented the guest profiles. Principal Dr. P. R. Wadnerkar highlighted the vital role of students in Praful



Chandra Roy Chemical Society and how to increase academic knowledge.

Resource Person Dr. Ram Isankar delivered guest lecture on Electronic Displacement focus on electronic effect, Hyperconjugation effect and Inductive effect also inspiring students about how to learn chemistry.

The event's success was made possible through the dedicated organizer Dr.A. D. Bansod, Dr. S. S. Padhen and Dr. A. P. Thakare. Anchoring was gracefully handled by Dr. S. S. Padhen with a heartfelt vote of thanks.

This programme ignited a spirit, responsibility, consciousness, empowering students to become true agents of change in their academic knowledge.

Aucta Aptitude Test

Department of Chemistry conducted General Aptitude Test (GAT-2026) in collaboration with Amravati University Chemistry Teachers' Association (AUCTA) on dated 11, February 2026 at 12.00 to 1.00 pm in college. Total 14 students registered for General Aptitude Test (GAT-2026) and all are actively participated. This exam was supervised and conducted under the guidance of Dr. S.S.Padhen, Coordinator of GAT-2026. The event's success was made possible through the dedicated organizer Principal Dr. P.R. Wadnerkar, Mr. S.A. Wani (IQAC Cordinator), Dr.A. D. Bansod (Professor and Head of Department), Dr. S. S. Padhen and Dr. A. P. Thakare.

Natural Colour Workshop: A New Boost to Students' Skills

A one-day workshop was organized for the students of the Chemistry and Botany departments of Rajarshee Shahu Science College, Chandur Railway, on the topic of natural colours.

The programme was presided over by the Principal, Dr. P. R. Wadnerkar . The workshop was inaugurated by Dr. M. J. Kene, Head of the Botany Department. The resource person for the workshop was Dr. Sampada Patharkar from the Botany Department. The programme was organized by Dr. A. D. Bansod, Head of the Chemistry Department, and Dr. P. R. Sardar from the Botany Department. The co-organizers included Dr. S. P. Padhen and Dr. A. P. Thakre.

In this workshop, Dr.Sampada Patharkar guided the students on preparing different types of natural colours using various natural materials such as turmeric, marigold, hibiscus, onion peel, rose, chrysanthemum, spinach, beetroot, palash, guava leaves, and mehendi. She explained how yellow, orange, red, green, pink, and purple shades can be produced from these materials. She also demonstrated all the practical procedures so that the trainees could gain hands-on experience.

Dr. Patharkar taught the students two methods of preparing natural colours. In the first method, natural colours can be prepared from flowers, while in the second method colours can be made from water, soil, and leaves. By using such natural materials, 10 kg of natural fragrant gulal was prepared in the college.

Through this workshop, the students received practical training, which added a new dimension to their personality and skills. Principal Dr. P. R. Wadnerkar sir expressed the hope that this training would inspire students to start small industries in the future. A total of 35 trainees participated in the workshop.

► **Dr. Ashish D.Bansod**
Professor and Head
Department of Chemistry

Department of Electronics

The vision of Electronics department is to provide knowledge in fundamental aspects of all branches of a Electronics. To develop skills in the proper handling of apparatus and component and to develop a skill how to apply Electronics in their day to day life. To create professionally competent students, researchers and entrepreneurs in the field of Electronics for the benefit of society. To impart quality education as per the industry need. To motivate students to undertake research on next generation technologies. To create an environment that shall foster growth of professionals capable of effectively using the scientific and technical knowledge for the betterment of mankind.

Inauguration of Sir V. Rajaraman Electronics Society 2025-26

The department of electronic has organised inauguration ceremony of Sir V. RajaRaman electronics society 2025 -26 on 29 th August, 2025 at 12:00 pm at F11. The program was presided over by the Principal of the college, Dr. P. R. Wadnerkar, the chief guest, as well as IQAC Coordinator Prof. S. A. Wani, and HOD of Department of Electronics Prof. Ms. P. R. Deshmukh. A total of 60 students attended the program..



The president of our society, Ms. Samiksha Kubde, is a B.Sc. 3rd student, and the vice president of our society, Ms. Gopika Yunate, is a B.Sc. 3rd student. Our society's secretary, Ku. Poonam Tungale, is a B.Sc. 3rd year student, and our society's treasurer, Ku. Akanksha Bakale, is a B.Sc. 3rd year student. The members of our society are Ku. Vedanti Bakale B.Sc. Part Three, Ku. Katyani Kalavate B.Sc. Part Two, Ku. Sakshi Dange B.Sc. Part Two, and Ku. Komal Bakale B.Sc. Part Two.

Group Discussion -

Group discussion for the students of B, Sc I, II, and III was conducted on 12/02/2025 on topic artificial intelligence and smart systems from the classes actively participated in these activity.

Peer Teaching -

To increase confidence and to develop enhance communication and social skill among student Department of Electronics was organized peer teaching from 15/03/25 to 20/03/25. Students participated in peer teaching actively.



Seminar -

Seminar is an inherent part of our college culture. Such an activity was conducted repeatedly for the benefits of students. Department of Electronics was organized a seminar on topic " Digital Electronics, Microprocessor 8085, and Microcontroller 8051".



Poster competition on the topic “Advancement in Renewable Energy Sources”-

The Department of Electronic has organised a poster competition on the topic “Advancement in Renewable Energy Sources” On 16 th September 2025, at Department of Electronics ,Rajarshi Shahu Science College, Chandur Railway. A total of 15 students from the department of Electronic participated in the competition. First place in poster competition secured Ms. Rituja Kurhade (B.Sc. 3rd year)Second Place: Ms. Manashree Vaidya (B.Sc. 2nd year)Third Place: Ms. Gopika Yunate (B.Sc. 3rd year).

“Online Guest lecture on Artificial Intelligence”

Rajarshee Shahu Science College, through the joint initiative of the Departments of Computer Science and Electronics, organized an online guest lecture on Artificial Intelligence on date 19 September 2025. The chief speaker of the program was Ms. Anvaya Parag Wadnerkar mam, currently working as a Student Product Consultant in Pittsburgh.

Participation In One Day LED Fabrication Workshop organized by Department of Applied Electronics, SGBAU Amravati

Spontaneous participation of students of the Department of Electronics, Rajarshi Shahu College in a one-day workshop organized by the Department of Applied Electronics of Sant Gadge Baba Amravati University on 7th February, Friday 2025. The Department of Applied Electronics of Sant Gadge Baba Amravati University organized a one-day workshop in which 15 students of Rajarshee Shahu Science College participated spontaneously and participated by making LED lights. A total of 50 students participated in this workshop. Students from Vidya Bharati and Shivaji Mahavidyalaya Amravati also participated in this workshop.



One day Visit to ‘Aai Mauli Industries’ (Water Bottling Plant) -



An industrial visit was organized for the students at ‘Aai Mauli Industry’ (Water Bottling Plant) in association with the Physics and Electronics Department of Rajarshi Shahu Science College, Chandur Railway at on 1 st April,2026.

Industry expert and Director of ‘Aai Mauli Industries’, Shri. Abhijeet R. Abdeo, explained the entire system of water processing and bottling to the students in detail, revealing various aspects of industry management

One day Visit to Dr. Panjabrao Deshmukh Memorial Science Centre, Amravati

An educational and institutional visit was organized for the students of Rajarshee Shahu Science College, Chandur Railway at Dr. Punjabrao Deshmukh Memorial Science on 1 st April,2026 and Innovation Activity Center, Shri Shivaji Education Society, Amravati. Through this visit, students got the opportunity to experience first-hand science, technology, innovation, and experiment-based learning.

► **Ms. Pallavi R. Deshmukh**
Head. Department of Electronics

Department of Library

College library is well stacked with text, reference, Competitive and other books to cater the needs of college students, faculty and other users. Number of periodicals, science research journals, and daily news papers are subscribed in the library. Considering the requirement of students preparing for the competitive examinations, some books useful for such examinations are also added. Moreover, there is good collection of educational CDs and DVDs. The library functions on an open access system and remain open from the morning till evening on all the working days. We provide library services even on holidays as when required. Library is automated using LMS library software. Federated search facility made available for students and staff. Library has institutional registration with NDL India which enables the users to meet with e-resources at any time. NDLI Club has been registered on dated 03rd January 2022. NDLI Club is an enabler of career progression for students, job seekers, researchers and learners. Book Bank Scheme is also the attraction of this library, providing books to the economically poor students of the college during academic session. 'Best Library User Award' for the college students. College has signed MoU with the College Library Knowledge Resource Center (Library) of Indira Gnanhi Kala Mahavidyalaya, Ralegaon Dist. Yavatmal.

Library Activities

Information Literacy Programme On the Eve of Librarians' Day-

On the occasion of Librarians' Day, the Library organized an Information Literacy Programme to emphasize the importance of information literacy in the digital era. The programme was presided over by Principal Dr. P. R. Wadnerkar. College Librarian Mr. M. P. Waghmare introduced students to the concept of information literacy and highlighted the importance of identifying, evaluating, and using authentic information effectively. He also paid tribute to Dr. S. R. Ranganathan, the Father of Library Science in India, and explained his remarkable contributions, including the Five Laws of Library Science. IQAC Coordinator Mr. S. A. Wani motivated students to make effective use of reliable information resources for academic excellence and lifelong learning.

Book Review Competition On the Eve of Wanchan Prerana Din -

On the occasion of Wanchan Prerana Din, commemorating the birth anniversary of Bharat Ratna Dr. A. P. J. Abdul Kalam, the Library organized a Book Review Competition on 15th October 2025 in the college library. The programme was inaugurated by Principal Dr. P. R. Wadnerkar, who highlighted the importance of developing reading habits and drawing inspiration from the life and vision of Dr. A. P. J. Abdul Kalam. College Librarian Mr. M. P. Waghmare coordinated the programme and emphasized that the competition aimed to promote reading culture and critical thinking among students. Students enthusiastically presented reviews on selected books, enhancing their reading, writing, and analytical skills. Ms. Nandini Prabhakar Chavhan (B.Sc. II Year) won the first prize, while Ms. Sakshi Shrikrushna Jichkar (B.Sc. III Year) secured the second prize.

Wanchan Sankalp Maharashtra:

As part of the Wanchan Sankalp Maharashtra initiative, the Library, in collaboration with



the National Service Scheme (NSS) and Rajarshi Shahu Science & Atul Jagtap Arts Junior College, organized a series of activities from 29 December 2025 to 2 January 2026 to promote reading culture among students.

- The programme commenced with a Library Cleanliness Drive on 29 December 2025, creating a clean, well-organized, and reader-friendly library environment. A Book Exhibition was held on 30–31 December 2025, showcasing reference books, competitive examination guides, literature, science, history, autobiographies, and other valuable resources. The exhibition was inaugurated by Principal Dr. P. R. Wadnerkar, who highlighted the importance of reading for lifelong learning.
- On 2 January 2026, a Mass Reading Programme, Reading Interaction Session, and Reading Skills Workshop were organized to strengthen reading habits and communication skills. Students actively participated in reading activities and interactive sessions guided by resource persons and faculty members.
- Book Review and Storytelling Competition was also organized to encourage critical thinking, creativity, and effective expression. Students from the senior and junior colleges participated enthusiastically, and winners were felicitated with books and prizes. In the Competition, Ku. Sakshi Shrikrushna Jichkar (B.Sc. Third Year) secured the First Prize, Ku. Janhavi Pradip Vahane (Class XI Arts) won the Second Prize, and Ku. Rani Raghunathrao Shivankar (B.Sc. First Year) secured the Third Prize. Ku. Prajvali Gajanan Dambare (B.Sc. First Year) was awarded a Consolation Prize for her commendable performance.

The entire programme witnessed enthusiastic participation from students, teaching and non-teaching staff and successfully reinforced the value of reading, knowledge sharing, and lifelong learning.

Librarian's Participation

- Research paper 'SWAYAM PRABHA Resources: A Quantitative Analysis Of Multidisciplinary Approaches In Higher Education With Special Reference To Artificial Intelligence P. 615-619' published in Vidyabharati International Interdisciplinary Research Journal. August, 2025.
- Research paper 'Digital Technology And Trends In Academic Libraries In India. P. 309-312' published in Vidyabharati International Interdisciplinary Research Journal, 2025.
- Research paper 'Integration Of Artificial Intelligence And Robotics In Libraries And Knowledge Resource Centers. P. 284-289' published in Journal Of Applied Bioanalysis. Vol. 11, No. 6 December, 2025.
- Book Chapter 'Quantitative Analysis of Science Subjects in e-PG Pathshala. P. 86-93' published in Research Synergy For Sustainable Change: Insights from Multidisciplinary Studies, Editor: Dr. M. P. Chikhale Publisher: DnyanPath Publication, Amravati.
- Patent Award 'RFID-Based Book Tracking Device'
Ph.D. Degree Awarded by SGBAU, Amravati on dated 10-11-2025 (Notification Date & No. 712/2025) on the title 'Use and Impact on of National Digital Library of India on Library Users With Special Reference to Engineering Colleges in Maharashtra State: A Study" under the Guidance of Dr. S. N. Wagh.

► Dr. Manoj P. Waghmare
Librarian

Department of Mathematics

"Inauguration of Shrinivasa Ramanujan Mathematical Society- 2025"

The inaugural ceremony of the Shrinivasa Ramanujan Mathematical Society-2025 was held on 25th August 2025 at F-11 Classroom at 3 pm with great enthusiasm. The program began with a welcome address by Dr. R. V. Kene, Head of the Department, who shared the vision of promoting mathematical learning and innovation. The ceremonial lamp was lit by respected Principal Dr. P. R. Wadnerkar, Chief Guest Dr. Ashwina Rangari, IQAC Coordinator Mr. S. A. Wani, and faculty members.

The society was officially inaugurated by Principal Dr. P. R. Wadnerkar, who paid tribute to Srinivasa Ramanujan and highlighted his contributions. Student bearers of the society were announced and welcomed with plants as a gesture of appreciation. Prof. Mamata Palsapgar was felicitated for securing fourth prize at the state level under the Career Katta Solar Energy Awareness Campaign.

IQAC Coordinator Prof. S. A. Wani shared motivational thoughts, encouraging students to actively participate in mathematical activities. The event was anchored by Ms. Dharti Chakule, a B.Sc.-II student. The program concluded with a vote of thanks by Ms. Shravani Natal, expressing gratitude to all present. The event successfully laid a strong foundation for fostering a vibrant and engaging mathematical community.



Guest Lecture on Topic "Limit, Continuity and Differentiation" -



The Mathematics Department of Rajarshree Shahu Science College organized a guest lecture on 25 August 2025 at 4 pm in F-11 Classroom. The lecture was delivered by Dr. Ashwina Rangari, Professor at Adarsh College, Dhamangaon Rly on the topic "Limit, Continuity and Differentiation." The main aim was to enhance students' interest, knowledge and awareness about research and career opportunities in mathematics. The program was chaired by respected Principal Dr. P. R. Wadnerkar, who emphasized the importance of

mathematics in daily life.

Guest Dr. Ashwina Rangari explained key concepts in a simple and effective manner, making the topic easy to understand for students. The session included an introduction by Dr. R.V.Kene, felicitation of the guest and motivational guidance by IQAC Coordinator Prof. S. A. Wani.

The program was hosted effectively by B.Sc. Part II student Ms. Dharti Chakule, and the vote of thanks was delivered by Ms. Shravani Natal.

Social Initiative "Clay Ganesh Idol Stall- ----- "Commitment to nature" and Ganeshotsav 2025

Ganeshotsav 2025 was celebrated with devotion and enthusiasm at Rajarshree Shahu



Science College from 27th August to 2nd September, marking its 5th year. The theme “Clay Ganpati – Commitment to Nature” promoted eco-friendly clay idols, encouraging sustainable practices among students and staff. A special clay idol stall initiative by SIGNature and the Department of Mathematics offered eco-friendly Ganesh Clay idols on a no profit–no loss basis, inspiring responsible celebrations.

The stall also raised awareness about environmental conservation and motivated students to adopt sustainable worship practices. The celebration of Ganeshotsav began with the installation of Lord Ganesha’s idol from this initiative. Various activities like Modak Decoration and Colouring competitions added creativity and cultural engagement to the festival. The event concluded with an eco-friendly immersion within the campus, spreading awareness about responsible celebrations. Overall, the festival beautifully combined devotion, unity, creativity and environmental consciousness.

Add-on Course on Vedic Mathematics

Department of Mathematics conducted an Add-on Course on Vedic Mathematics during 15th September to 11th October 2025. The course aims to enhance students’ mathematical aptitude using ancient Indian computational techniques and practical problem-solving methods. It is designed for First, Second and Third year undergraduate students of all streams with a duration of 30 hours over 4 to 5 weeks. The course was conducted in offline mode under the coordination of Dr. R. V. Kene. Its objectives include developing mental calculation skills, promoting Indian mathematical heritage and supporting academic learning. The syllabus covered basic arithmetic techniques, algebraic applications and strategies for competitive examinations. Assessment will be based on attendance, assignments and a final test, followed by certification upon successful completion. The course aligns with the National Education Policy 2020, encouraging value-added and holistic learning. It is expected to promote interdisciplinary participation and strengthen students’ analytical abilities.

Guest lecture on “Basic Strategies in Mathematics”

A guest lecture on “Basic Strategies in Mathematics” was organized by the Department of Mathematics on 18 November 2025 with the aim of reducing students’ fear of mathematics and strengthening their foundational understanding at the undergraduate level. Mathematics, often regarded as the crown of knowledge, plays a crucial role in opening doors to numerous career opportunities, yet many students struggle with it due to lack of clarity in basic concepts. To address this, Dr. Abhijeet Bansod, Assistant Professor from Vinayak Vidyan Mahavidyalaya, Nandgaon Khandeshwar, was invited as the keynote speaker. He interacted with students and explained simple, effective strategies for learning mathematics, emphasizing its importance as the foundation of all subjects and highlighting various career prospects associated with it. The programme was presided over by Principal Dr. P. R. Wadnerkar, in the presence of Head of the Mathematics Department Dr. Rekha Korpe and Assistant Professor Ms. Mamta Palaspagar, with a total of 33 students attending the session.

National Mathematics Day Celebration – Mathematical Puzzle & Logical Thinking Activities & AWS Career Tour

National Mathematics Day was celebrated with great enthusiasm at Rajarshree Shahu Science College, Chandur Railway, on 22 December, marking the birth anniversary of the great Indian Mathematician Srinivasa Ramanujan and highlighting the importance of Mathematics in education and research. The programme was presided over by Principal Dr. P. R. Wadnerkar, who emphasized the role of mathematics in daily life and encouraged students to overcome fear and develop logical thinking and problem-solving skills, in the presence of IQAC Coordinator Prof. S.

A. Wani. As part of the celebration, students actively conducted a Puzzle Solving and logical thinking activity, enhancing creativity and reasoning abilities. Additionally, under the Career Katta initiative, an AWS Career Tour provided insights into cloud computing, AWS technologies, and career opportunities in the IT sector. The programme was successfully organized by Head of the Department Dr. R. V. Kene, Assistant Professor Ms. Mamta Palaspar, and students, and concluded with a vote of thanks.

University Level Intercollegiate Seminar Competition for UG and PG

A University Level Inter-Collegiate Seminar Competition on “Algebra and Calculus” was successfully held on 7th March 2026 at Vinayak Vidnyan Mahavidyalaya, Nandgaon Khandeshwar, to promote research interest and presentation skills among students. The event was jointly organized by Rajarshree Shahu Science College, Chandur Railway and Vinayak Vidnyan Mahavidyalaya in collaboration with the Amravati University Mathematics Teachers’ Association. The program was inaugurated by Dr. V. A. Sharma,, President of the Mathematics Board of Studies and Teachers’ Association of Sant Gadge Baba Amravati University and presided over by Dr. Suchita Khodke, Principal of VVM, Nandgaon Khandeshwar with Dr. P. R. Wadnerkar, principal of RSSC, Chandur Rly as Guest of Honour. Distinguished guests included Dr. S. A. Wani, Dr. Anant Wadatar and members of the Mathematics Board of Studies such as Dr. V. R. Patil, Dr. S. R. Bhoyar and Dr. G. U. Khapekar.

Around 50 UG and PG students from affiliated colleges participated in two competitive rounds. In the UG category, Kumari Nimisha Nistane secured first place, followed by Kumari Vaishnavi Pawar and Kumari Shrutika Arabat. In the PG category, Adeeba Anis Khan won first prize, with Sanjog Agrawal and Mayura Joge securing second and third positions respectively. Winners were awarded cash prizes along with certificates and mementos.

The competition was judged by an expert panel of academicians and the valedictory session featured an inspiring address by Dr. S. R. Bhoyar. The event was successfully coordinated by Dr. R. V. Kene and Dr. Preeti Deshmukh with the support of faculty members Dr. A. S. Bansod and Ms. M. S. Palaspar and student volunteers, making it a meaningful platform for showcasing mathematical knowledge and research aptitude.

Mathematical Clinic Activity

The Department of Mathematics organized a Mathematical Clinic Activity during 5th March to 20th April 2026 with the objective of strengthening students’ conceptual understanding and problem-solving abilities. This activity was specially scheduled beyond regular lecture hours and was incorporated into the departmental timetable to provide additional academic support to students.

The clinic was conducted at a convenient time slot, ensuring that it did not clash with regular classes. The clinic was conducted under the guidance of faculty members Dr. R. V. Kene and Ms. M. S. Palaspar, where students actively participated by bringing their academic queries related to topics on Vector Analysis and Geometry

Students actively participated and benefited from one-to-one interaction as well as peer discussions. The activity created a friendly and stress-free learning environment, helping students overcome difficulties in mathematics.

The program will proved to be beneficial if the students will achieve their goal of promoting better understanding and will improve in academic result in mathematics.

► **Dr. Rekha V. Kene**
Head, Department of Mathematics



National Cadet Corps (NCC)

Introduction:

The academic year 2025-26 marked a significant milestone in the history of Rajarshee Shahu Science College, Chandur Railway, with the sanction of a new National Cadet Corps (NCC) Unit under 62 Maharashtra Battalion NCC, Amravati.

The newly sanctioned NCC Unit has an authorized strength of 53 cadets, providing an excellent opportunity for students to participate in personality development, leadership training, adventure activities, social service, and nation-building programmes conducted by the NCC.

During the first year of enrollment, the college successfully enrolled a total of 18 Senior Division/Senior Wing (SD/SW) cadets, comprising:

- Senior Division (SD): 11 Cadets
- Senior Wing (SW): 7 Cadets
- Total Enrollment: 18 Cadets

The enrollment process was conducted smoothly with enthusiastic participation from students. The newly enrolled cadets expressed keen interest in joining the NCC to develop discipline, leadership qualities, self-confidence, and a spirit of patriotism.

The establishment of the NCC Unit is expected to significantly enhance the overall development of students by providing opportunities to participate in institutional training, camps, community development programmes, adventure activities, and national-level events. The college administration, faculty members, and NCC Care Taker Officer extended full support for the successful commencement of the unit.

The college looks forward to achieving the sanctioned strength of 53 cadets in the coming years and contributing actively to the objectives of the National Cadet Corps under the motto "Unity and Discipline."

Objectives:

- To develop character, discipline, leadership, and teamwork.
- To encourage social service and community participation.
- To promote environmental conservation and public awareness.
- To instill the spirit of national integration and patriotism.

Activities Conducted

1. NCC Enrolment Programme:

The enrolment process for the academic session 2025-26 was conducted from 1 July to 15 July 2025. Students from various departments enthusiastically participated. Physical fitness tests, interviews, and orientation sessions were organized before the final selection of cadets.

2. NCC Inauguration on the Occasion of Independence Day:

The National Cadet Corps (NCC) Unit of Rajarshee Shahu Science College, Chandur Railway, officially inaugurated its activities for the academic session on the auspicious occasion of the 78th Independence Day, celebrated on 15 August 2025.

The programme commenced with the hoisting of the National Flag by the Principal in the presence of teaching and non-teaching staff, NCC cadets, students, and invited guests. The National Anthem was sung with great patriotism, followed by a floral tribute to the freedom fighters.

The formal inauguration of the newly established NCC Unit was conducted during the programme. The Principal congratulated the cadets and appreciated the efforts made to establish the NCC Unit in the college. In his address, he highlighted the importance of NCC in developing

discipline, leadership, character, patriotism, and a spirit of national service among the youth.

The Care Taker Officer, Dr. S. S. Padhen, Associate Professor, Department of Chemistry, welcomed the newly enrolled cadets and explained the objectives, activities, and opportunities available through NCC. He encouraged students to actively participate in training camps, social service activities, adventure programmes, and community development initiatives.

The celebration successfully instilled a sense of patriotism, responsibility, and national pride among all participants while marking the beginning of a promising journey for the college's NCC Unit.

3. Cleanliness Drive (Swachh Bharat Abhiyan): (17th September to 2nd October-2025)

A cleanliness drive was conducted on 29/09/2025 by the National Cadet Corps (NCC) in Rajarshee Shahu Science College, Chandur Railway under Swachhostav in the college premises. The campaign was started from the Chemistry Department of the college. The cleanliness campaign was implemented with the Tag line of Ek Din, Ek Ghanta, EkSaath.

On this occasion, Principal Dr. Parag Wadnerkar convinced the students about the importance of cleanliness. In this campaign, I. Q. A. C. Coordinator Prof. S. A. Wani, NCC CTO Officer Prof. Dr. S. S. Padhen, all the faculty members and NCC cadets actively participated in the cleanliness campaign.

4. Constitution Day Celebration:

The Constitution Day of India was celebrated with great respect and enthusiasm at Rajarshee Shahu Science College, Chandur Railway on 26 November 2025. The Equal Opportunity Cell, National Cadets Corps (NCC) and Library Department jointly organized a series of programs aimed at spreading constitutional awareness among students. The events included the Preamble Reading Program, Essay Competition, and Online Quiz Competition.

Preamble Reading Program:

The Constitution Day celebration commenced at 12.30 p.m. with the collective reading of the Preamble of the Indian Constitution. Students, faculty members, and non-teaching staff actively participated in the reading, reaffirming their commitment to the constitutional values of Justice, Liberty, Equality, and Fraternity.

The program was presided over by Principal Dr. P. R. Wadnerkar, who addressed the gathering and highlighted the importance of upholding constitutional values for building a responsible society.

Dr. V. Kambli attended as the Chief Guest and delivered an informative and inspiring speech on the ideals and spirit of the Indian Constitution.

The program was organized by Dr. P. R. Sardar and Dr. S. S. Padhen, who ensured smooth coordination and participation.

Essay Competition:

As part of the celebrations, an Essay Competition was conducted for students on topics related to the Constitution of India. The objective of the competition was to promote understanding of constitutional values, structure, and the role of the Constitution in shaping responsible citizenship. A total of 140 students participated with great enthusiasm. Essays were evaluated based on content, clarity, originality, and presentation.

Prize Winners (College Section):

First Prize – Ku. Ashatha Ganjare

Second Prize – Ku. Bhakti Wankhade

Third Prize – Ku. Kashmira

The competition encouraged students to think deeply about constitutional principles and their relevance in contemporary society.



Online Quiz Competition on Constitution Awareness:

To further strengthen constitutional literacy among students, an Online Quiz Competition was organized by the Equal Opportunity Cell and Library Department. The quiz consisted of objective-type questions based on the Indian Constitution, fundamental rights, duties, and historical background. Students who secured 80% or above were automatically awarded E-Certificates, which received an overwhelming response from participants. The quiz served as an effective tool to test and enhance the students' knowledge about the Constitution in an engaging manner.

The Constitution Day celebrations at Rajarshree Shahu Science College, Chandur Railway successfully fulfilled their objective of spreading constitutional awareness and promoting active participation among students. The combined activities of Preamble reading, essay writing, and online quiz enriched the understanding of constitutional values and inspired students to adopt these principles in their academic and personal lives.

5. Run for Swadeshi:

The NCC Unit and Equal Opportunity Cell of Rajarshree Shahu Science College, Chandur Railway, jointly organized a running competition titled "Run for Swadeshi" on the occasion of Swami Vivekanand Jayanti, on 12 January 2026, at the college campus. The program aimed to promote patriotism, physical fitness, and youth awareness. 2 km running competition was organized, in which college students and NCC cadets participated with great enthusiasm and sportsmanship.

The program was formally inaugurated by the Honorable Principal, Dr. P. R. Wadnerkar Sir. The entire event was successfully organized under the guidance of Dr. S. S. Padhen, Convener of NCC, and Dr. P. R. Sardar, Convener of the Equal Opportunity Cell. At the end of the program, the principal appreciated the efforts of the organizers and participants. In his concluding remarks, he emphasized that such activities help in creating awareness about physical fitness and national values among students. He congratulated all the winners and organizers for the successful execution of the event. The program concluded on a positive note with active participation and motivation among students.

6. Republic Day Celebration:

The NCC unit celebrated Republic Day on 26 January 2026 with patriotic zeal. Cadets participated in the Flag Hoisting Ceremony, ceremonial parade, and cultural activities. The programme highlighted the importance of the Constitution, democracy, and national unity.

Cadets' Participation: Throughout the year, NCC cadets actively participated in:

- College-level activities
- Vikshit Bharat Young Leaders Dialogue (VBYLD) 2026
- Firing Practice Sessions at 8 MAH BN NCC, Amravati for Malvankar Firing Competition.
- CATC Camp at 8 MAH BN NCC, Amravati.
- Awareness rallies

Their dedication and disciplined conduct reflected the core values of the National Cadet Corps.

Achievements:

- Successful conduct of NCC enrolment.
- Active participation in cleanliness and environmental campaigns.
- Meaningful celebration of national festivals.
- Increased awareness among students and citizens regarding health, safety, and environmental issues.
- Strengthened the spirit of discipline, leadership, and social responsibility among cadets.

► **Dr. Sanghapal S. Padhen**

Care Taker Officer (CTO)

Associate Professor, Department of Chemistry

Internal Complaint Committee

The Internal Complaint Committee (ICC) of Rajarshree Shahu Science College, Chandur Rly remains committed to ensuring a safe, inclusive and harassment-free environment for all students, faculty and staff in line with the Prevention of Sexual Harassment (POSH) Act, 2013. This report outlines the key activities conducted during the reporting period and confirms that no complaints were received.

Empowering Girls through Safety and Menstrual Health Awareness -

The Women Cell in collaboration with the Internal Complaint Committee of Rajarshree Shahu Science College, Chandur Railway organized an awareness programme titled "Empowering Girls through Safety and Menstrual Health Awareness" on 29th November 2025 at 12:00 noon in Classroom S5. The programme aimed to create awareness among girl students regarding personal safety, menstrual health, hygiene, dignity, and overall well-being.

The programme was held under the presidency of Principal Dr. P. R. Wadnerkar, who emphasized the importance of empowering girls through education and awareness. It began with an introductory speech by Dr. S. P. Patharkar, who explained the objectives and highlighted the role of the Women Cell and ICC. Dr. R. V. Kene delivered a special lecture on menstrual hygiene and health practices.

Dr. R. N. Bhagat and Ms. M. S. Palaspagar guided students on safety, emotional strength and responsible use of social media. A total of 89 girl students actively participated in the programme. The programme concluded with a vote of thanks by Ms. Sonu Deshmukh. Overall, the programme was successful in promoting awareness and empowering students.



Besides the activities mentioned, counseling, interactive and feedback sessions on multiple topics were conducted for the students throughout the year. The College has a complaint box to report any wrong doings.

Handling of Complaints

- o The ICC maintain a strictly confidential and accessible complaint redressal mechanism
- o During this period, no complaints were received, indicating a positive and secure environment at the college.

The ICC at Rajarshree Shahu Science College, Chandur Rly continues its efforts to create awareness address concerns proactively and foster a culture of mutual respect.

► **Dr. Rekha V Kene**
Presiding Officer
Internal Complaint Committee



WOMEN CELL

The Women Cell at Rajarshee Shahu Science College, Chandur Railway, serves as a pivotal platform dedicated to empowering women through education and awareness. The primary aim of the Women Cell is to create a nurturing and supportive environment where female students can thrive academically and personally, equipped with the knowledge, skills, and confidence to navigate the challenges of modern society.

To achieve this, the Women Cell has established several objectives. Firstly, it focuses on increasing awareness among students about crucial issues related to women's health, safety, and well-being, including menstrual hygiene and feminine hygiene practices. Secondly, it aims to empower women by providing them with valuable insights and tools that allow them to confront societal challenges effectively. The Women Cell also emphasizes skill development through workshops and hands-on activities that foster creativity and self-reliance. Additionally, it seeks to build a sense of community among students, encouraging collaboration and mutual respect, thereby nurturing an inclusive atmosphere. Lastly, the Women Cell promotes social responsibility, raising awareness about women's rights and health challenges that affect women both locally and globally.

The importance of the Women Cell within the college community cannot be overstated. It acts as a catalyst for creating a culture that values and respects women's contributions. In a society that is continually evolving, it is essential for young women to be equipped with the knowledge and resources needed to succeed academically, socially, and personally. By engaging in activities focused on health, empowerment, and awareness, the Women Cell enhances self-esteem and prepares students to make meaningful contributions to society. Furthermore, by advocating for gender equality, the Women Cell strives to address and raise awareness of issues impacting women, thereby promoting a safe and nurturing environment for all.

The execution of all these activities has been facilitated under the able permission of our IQAC Coordinator, Mr. S. A. Wani, and the guidance of our college principal Dr. P. R. Wadnerkar, whose support has been instrumental in ensuring the success and smooth conduct of these initiatives.

Summary of Activities Conducted

Throughout the 2025-2026 session, the Women Cell organized a series of activities aimed at empowering and educating female students on various important issues. The session began with a Tree Plantation Drive on 4th July 2025 at Atul Vidya Mandir Society College Campus, organized in celebration of Hon'ble President Prof. Uttara Tai V. Jagtap's birthday. This event promoted environmental awareness and social responsibility through the planting of a single tree in collaboration with Women Cell, SIGNature, and NSS, fostering community involvement and environmental consciousness. Following this, a Workshop on Eco-based Friendship Band Preparation was held, which saw the participation of 57 students. This creative activity not only encouraged the making of eco-friendly friendship bands but also helped instil a sense of

environmental responsibility among students. On 28th November 2025, a Women's Wellness Workshop took place at Late Atul Jagtap High School, Chandur Railway, targeting girls from 8th to 10th class. The workshop offered free health screenings, including mammography and Pap smear tests, with the goal of raising awareness about women's health issues and cancer prevention, thereby empowering young girls to prioritize their health. Additionally, from 14th to 15th September 2025, a health awareness program was conducted near the college campus in collaboration with Dr. Panjabrao Deshmukh Medical College, Amravati Association, offering free health screenings to residents of Chandur Railway and nearby villages, further emphasizing the importance of timely medical care and women's health. On 29th November 2025, the Women Cell and ICC organized an event focused on empowering girl students by raising awareness about personal safety, legal rights, and menstrual hygiene, promoting healthy practices and ensuring a safe campus environment.

On 3rd January 2026, a cultural program was held at Late Atul Jagtap Memorial Hall to honour Savitribai Phule's legacy. The event aimed to inspire female students through cultural activities, raise awareness about women icons and social reformers, and foster social and cultural appreciation, thereby instilling pride, confidence, and social responsibility. Similarly, a comprehensive Employability Skill Training Program was conducted from 6th to 10th January 2026 at the ICT Room, targeting B.Sc. 3rd Year Girls Students. The program focused on developing soft skills such as communication, presentation, workplace etiquette, leadership, and personal branding, with resource person Mr. Devnath Pillai guiding the participants. The training received positive feedback, with students reporting increased confidence and improved employability skills. On 12th January 2026, a commemorative Pratima Poojan was held at Late Atul Jagtap Memorial Hall to honour Jijamata's birth anniversary, serving as a cultural and spiritual tribute that reinforced cultural values and celebrated her contributions to history. Finally, on 27th March 2026, a Health Check-Up Camp was organized at Jawla in collaboration with Dr. Panjabrao Deshmukh Medical College. The camp provided free health screenings to residents of nearby villages, promoting early detection of health issues and encouraging healthier lifestyles. Overall, under the guidance of the IQAC Coordinator Mr. S. A. Wani, principal Dr. P. R. Wadnerkar, and with the dedicated coordination of the Women Cell team, these activities successfully contributed to the education, empowerment, and well-being of students and the community, reinforcing the Women Cell's commitment to health, awareness, and social responsibility.

► **Dr. Sampada P. Patharkar**
Convenor, Women Cell



राष्ट्रीय सेवा योजना

राष्ट्रीय सेवा योजना सत्र २०२५-२६ या शैक्षणिक सत्रा करिता दिनांक २५ ऑगस्ट २०२५ पर्यंत विद्यार्थी व विद्यार्थिनींचे नोंदणी अर्ज क्यू. आर. कोड द्वारे स्वीकारण्यात आले. तसेच २०२५-२६ या सत्रा करिता विद्यापीठाने ठरवून दिलेल्या वेळापत्रक प्रमाणे राष्ट्रीय सेवा योजना पथकाच्या वतीने नियमित कार्यक्रम महाविद्यालयात उत्स्फूर्तपणे राबविण्यात आले. राष्ट्रीय सेवा योजना पथकाने सत्र २०२५-२६ या कालावधीमध्ये कार्यक्रमाधिकारी प्रा. डॉ. गजानन संतापे तसेच महिला कार्यक्रम अधिकारी डॉ. रोशनी भगत यांनी विद्यापीठाने दिलेल्या वेळापत्रक प्रमाणे महाविद्यालय परिसर चांदुर रेल्वे शहर व ग्रामीण परिसर येथे सेवा कार्य केले.

नियोजित वेळापत्रक रा. से. यो. अंतर्गत घेण्यात येणाऱ्या उपक्रमाची सूची

नियमित कार्यक्रम दत्तक वस्ती, गाव व महाविद्यालय स्तरावर घेण्यात आलेले कार्यक्रम

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| १. नेतृत्व गुण विकास शिबिर | २. नियोजन सत्र |
| ३. स्वच्छता अभियान | ४. राष्ट्रीय एकात्मता व सद्भावना कार्यक्रम |
| ५. महिलांसाठी विविध कार्यक्रम | ६. नशा मुक्त अभियान |
| ७. वर्षभरातील थोर पुरुषांच्या जयंती व पुण्यतिथी अभिवादन कार्यक्रम | |
| ८. स्वच्छता ही सेवा | ९. वृक्षारोपण व संवर्धन |
| १०. प्लास्टिक निर्मूलन | ११. पर्यावरण जनजागृती |
| १२. पोषण आहार सप्ताह Dish Decoration Competition | १३. हर घर तिरंगा अभियान |
| १४. नेत्रदान जनजागृती कार्यक्रम | १५. भारतीय संविधान दिन |
| १६. जागतिक एड्स दिन | १७. विकसित भारत अभियान २०४७ |
| १८. डॉ. बाबासाहेब आंबेडकर जयंती व्याख्या | १९. राष्ट्रीय सेवा योजना स्थापना दिवस |
| २०. Vande Mataram Samuh Geet | २१. जागतिक पर्यावरण दिन |
| २२. आंतरराष्ट्रीय योग दिन | २३. राजर्षी शाहू महाराज जयंती |
| २४. एक पेड मा के नाम | २५. राजमाता अहिल्यादेवी होळकर गौरव अभियान |

सत्र २०२५-२६ ला प्रवेशित झालेल्या विद्यार्थ्यांमधून १०० विद्यार्थ्यांचे प्रवेश ऑगस्ट - सप्टेंबर २०२५ ला करण्यात आले. विद्यार्थ्यांची शैक्षणिक गुणवत्ता, सर्वांगीण विकास तसेच त्यांच्यामध्ये असणाऱ्या सुप्त गुणांना वाव देण्याच्या उद्देशाने त्यांना राष्ट्रीय सेवा योजनेच्या नियम व अटी समजावून सांगण्यात आल्या. महाविद्यालयाचे प्राचार्य डॉ. पराग वडनेरकर यांच्या मार्गदर्शनाखाली विद्यार्थ्यांमध्ये नेतृत्व गुण विकसित करणे व सामाजिक बांधिलकी जोपासण्या करिता राष्ट्रीय सेवा योजनेच्या स्वयंसेवकांमध्ये राष्ट्रीय सेवा व एकात्मतेची भावना वाढविणे हे एकमेव उद्दिष्ट समोर ठेवून शिक्षणानुसार सेवा या तत्त्वावर आधारित सामाजिक समस्यावर उपाय शोधण्यासाठी व जबाबदार नागरिक बनण्यास मदत व्हावी याकरिता नाविन्यपूर्ण उपक्रम राबविण्याकरिता विविध कार्यक्रमांचे आयोजन करण्यात आले. तसेच सत्र प्रारंभ नंतर नोंदणी कार्यासाठी महिला कार्यक्रम अधिकारी डॉ. रोशनी भगत यांचे सहकार्य लाभले.

अतुल विद्या मंदिर संस्थेच्या सन्माननीय अध्यक्ष प्रा. सौ. उत्तराताई जगताप यांच्या वाढदिवसाचे औचित्य साधून दिनांक ४ जुलै २०२५ ला राष्ट्रीय सेवा योजना पथकाच्या वतीने महाविद्यालय परिसरात वृक्षारोपण कार्यक्रम राबविण्यात आला. याप्रसंगी महाविद्यालयाचे प्राचार्य डॉ. पराग वडनेरकर कार्यक्रमाधिकारी डॉ. गजानन संतापे तसेच महिला कार्यक्रम अधिकारी डॉ. रोशनी भगत, महाविद्यालयातील प्राध्यापक वृंद व शिक्षकेतर कर्मचारी उपस्थित होते.

अतुल विद्या मंदिर संस्थेचे संस्थापक अध्यक्ष स्व. प्रा. वालमिकराव जगताप यांच्या जयंतीचे औचित्य साधून दिनांक १६ जुलै २०२५ ला राष्ट्रीय सेवा योजना पथकाच्या वतीने मातोश्री वृद्धाश्रम मालेगाव भांनखेडा अमरावती येथे धान्य व वृक्ष दान देणगी स्वरूपात दिले.

अतुल विद्या मंदिर संस्थेचे सन्माननीय सचिव धामणगाव रेल्वे मतदार संघाचे माजी आमदार प्रा. वीरेंद्र भाऊ जगताप यांच्या वाढदिवसाचे औचित्य साधून दिनांक ११ ऑगस्ट २०२५ ला मोफत नेत्र तपासणी शिबिराचे आयोजन करण्यात आले. सामाजिक दायित्वाच्या भावनेतून मोफत नेत्र तपासणी शिबिराचे आयोजन करून मोतीबिंदू शस्त्रक्रिया करिता निवड करण्यात आली. नेत्र तज्ञ डॉ. किरण काळे ग्रामीण रुग्णालय चांदूर रेल्वे यांनी रुग्णांची तपासणी केली तसेच या शिबिराकरिता चांदूर रेल्वे ग्रामीण रुग्णालयाचे आरोग्य कर्मचाऱ्यांचे सहकार्य लाभले. या प्रसंगी आशा वर्कर यांना साडी वाटप करण्यात आली. या कार्यक्रमाच्या यशस्वी ते करिता महाविद्यालयाचे प्राचार्य, प्राध्यापक, शिक्षकेतर कर्मचारी, विद्यार्थी तसेच गावातील प्रतिष्ठित व्यक्ती, चांदूर रेल्वे यांचे सहकार्य लाभले.

दिनांक १ ऑगस्ट २०२५ ला साहित्यसम्राट लोकशाहीर अण्णाभाऊ साठे जयंती व लोकमान्य टिळक यांच्या ११० व्या जयंतीनिमित्त अभिवादन कार्यक्रम राबविण्यात आला. यामध्ये राष्ट्रीय सेवा योजनेच्या स्वयंसेवकांनी या थोर पुरुषांच्या जीवनावर समायोजित

भाषणे दिली.

भारतीय स्वातंत्र्यदिनाचा अमृत महोत्सव या वर्षानिमित्त हर घर तिरंगा अभियान राबविण्यात आले तसेच स्वातंत्र्यदिनाचे औचित्य साधून महाविद्यालयाचे प्राचार्य यांच्या हस्ते महाविद्यालय परिसरात वृक्षारोपण कार्यक्रम आयोजित करण्यात आला होता.

राष्ट्रीय सेवा योजनेच्या माध्यमातून नशा मुक्त अभियान राबविण्यात आले. दरवर्षी विविध व्यसनाने लाखो लोक मृत्युमुखी पडत आहेत त्यामुळे आज नशा मुक्त समाज ही काळाची गरज बनली आहे व्यसनांपासून दूर राहण्यासाठी व्यक्तीचा दृढ निश्चय असणे आवश्यक आहे तसेच व्यसनमुक्तेसाठी समाजाने देखील पुढाकार घेणे आवश्यक आहे अशा प्रकारचे प्रस्ताविकेतून नशा मुक्त समाज प्रबोधन या विषयावर कार्यक्रम अधिकारी डॉ. गजानन संतापे यांनी थोडक्यात मनोगत व्यक्त केले.

१२ ऑगस्ट २०२५ रोजी महाविद्यालयात परिसर स्वच्छता अभियान या कार्यक्रमाचे आयोजन करण्यात आले होते स्वातंत्र्य दिनाचे औचित्य साधून विद्यार्थ्यांना हर घर तिरंगा अभियान राबविण्यात आले. तसेच महाविद्यालयाच्या जवळ नागरिक वसाहतीमध्ये तिरंगा रॅलीचे आयोजन करण्यात आले. यामध्ये राजर्षी शाहू इंग्लिश स्कूल, राजर्षी शाहू विज्ञान अतुल जगताप कनिष्ठ महाविद्यालय, अतुल जगताप माध्यमिक विद्यालय प्राध्यापक वृंद, शिक्षक वृंद, शिक्षकेतर कर्मचारी व विद्यार्थी बहुसंख्येने सहभाग नोंदविला.

राष्ट्रीय पोषण माह साजरा करण्यात आला. निमित्ताने विद्यार्थ्यांमध्ये पोषण आहार या विषयावर डिश डेकोरेशन स्पर्धेचा आयोजन करण्यात आले होते या स्पर्धेच्या माध्यमातून विद्यार्थ्यांमध्ये पोषण आहाराबद्दल तसेच मानवी हृदय या विषयाच्या निगडित जनजागृती करण्याचा राष्ट्रीय सेवा योजनेचा संकल्प होता

स्वच्छता ही सेवा अभियान दिनांक १७ सप्टेंबर ते २ ऑक्टोबर अंतर्गत महाविद्यालय परिसरात स्वच्छता अभियान राबविण्यात आले. शालेय विद्यार्थ्यांना स्वच्छतेचे महत्त्व पटवून देण्यात आले. २ ऑक्टोबर २०२५ला राष्ट्रपिता महात्मा गांधी व माजी पंतप्रधान लाल बहादूर शास्त्री यांच्या जयंतीचे औचित्य साधून सर्व उपस्थितांना स्वच्छतेची प्रतिज्ञा देण्यात आली व २ ऑक्टोबर हा दिवस स्वच्छता दिवस म्हणून साजरा करण्यात आला.

स्वच्छता ही सेवा अभियान २०२५

दिनांक १७ सप्टेंबर ते २ ऑक्टोबर या दरम्यान महाविद्यालयामध्ये विविध उपक्रमाद्वारे स्वच्छता ही सेवा अभियान राबविण्यात आले. स्वच्छता उत्सव, क्लीन ग्रीन उत्सव, विकसित भारत २०४७ मध्ये युवकांचा संवाद कार्यक्रम, एक दिन एक घंटा एक साथ राष्ट्र स्वच्छता अभियान, जागतिक पर्यावरण आरोग्य दिवस, विश्व पर्यटन दिवस, शहीद भगतसिंग जयंती, जागतिक हृदय दिवस, पोषण आहार या विषयावर स्पर्धा, महात्मा गांधी जयंती सार्वजनिक स्वच्छता अभियान इत्यादी उपक्रम आयोजित करून प्राध्यापक वृंद शिक्षकेतर कर्मचारी राष्ट्रीय सेवा योजनेचे स्वयंसेवक विद्यार्थी यांनी उत्स्फूर्तपणे सहभाग नोंदविला.

दिनांक २४/९/२०२५ सुप्रसिद्ध निवेदिका व्याख्याता महाराष्ट्र राज्य श्रीमती शिप्राताई मानकर यांच्या विकसित भारत २०४७ मध्ये युवकांचा संवाद या विषयावर व्याख्यानाचे आयोजन करण्यात आले. त्या एक उत्कृष्ट राष्ट्रीय सेवा योजनेचे स्वयंसेवक म्हणून त्यांना अमरावती विद्यापीठाद्वारे कलर कोडद्वारे सन्मानित करण्यात आले होते अशा सुप्रसिद्ध व्यक्तींसोबत विद्यार्थ्यांनी संवाद साधला तसेच त्यांनी विकसित भारत या विषयावर विद्यार्थ्यांना मार्गदर्शन केले याप्रसंगी महाविद्यालयाचे प्राचार्य डॉ. पी. आर. वडनेरकर हे अध्यक्षस्थानी उपस्थित होते तर प्रमुख पाहुणे म्हणून महाविद्यालयाचे प्रा. एस. ए. वाणी महिला कार्यक्रम अधिकारी डॉ. रोशनी भगत राष्ट्रीय सेवा योजनेचे कार्यक्रम अधिकारी डॉ. गजानन संतापे हे मंचावर उपस्थित होते. या कार्यक्रमाचे संचालन कु. धर्ती छकुले या विद्यार्थिनीने केले. दिनांक २५ सप्टेंबर २०२५ ला पंडित दिन दयाल उपाध्याय जयंतीचे आयोजन करण्यात आले होते. या जयंतीनिमित्त विद्यार्थ्यांना या महापुरुषांच्या जीवन चरित्रावर माहिती सांगण्यात आली तसेच जयंतीचे औचित्य साधून एक दिन एक घंटा एक साथ राष्ट्र स्वच्छता अभियान पूर्ण महाविद्यालयामध्ये व परिसरात राबविण्यात आले यामध्ये सर्व राष्ट्रीय सेवा योजनेचे स्वयंसेवक महाविद्यालयाचे प्राचार्य डॉ. पी. आर. वडनेरकर आयक्यूसी समन्वयक, सर्व विभाग प्रमुख, प्राध्यापक वृंद, शिक्षकेतर कर्मचारी, व विद्यार्थी यांनी सहभाग नोंदविला. तसेच दिनांक २६ सप्टेंबर २०२५ ला जागतिक पर्यावरण आरोग्य दिवस या दिवशी महाविद्यालय परिसरात राष्ट्रीय सेवा योजनेअंतर्गत वृक्षारोपण या कार्यक्रमाचे आयोजन करण्यात आले होते विद्यार्थ्यांना वृक्ष लागवड व पर्यावरण समतोल राखण्यासाठी वृक्षांची लागवड करणे अत्यंत आवश्यक आहे त्यामध्ये सर्व विद्यार्थ्यांनी असा संदेश समाजापर्यंत पोहोचवण्याचा संकल्प केला. दिनांक २८ सप्टेंबर २०२५ ला भारताचे महान क्रांतिकारक शहीद भगतसिंग यांची जयंती निमित्त प्रतिमापूजन व हार अर्पण पण कार्यक्रमाचे आयोजन करण्यात आले होते सर्व विद्यार्थ्यांनी त्यांना मानवंदना देऊन अभिवादन केले महाविद्यालयाचे प्राचार्य यांनी भगतसिंग यांचा स्वातंत्र्य चळवळीतील योगदान व सर्वात कमी वयामध्ये शहीद होणारे एक स्वातंत्र्य सैनिक असा त्यांचा उल्लेख केला या कार्यक्रमाचे आयोजन राष्ट्रीय सेवा योजनेचे कार्यक्रम अधिकारी डॉ. गजानन संतापे व महिला कार्यक्रमाधिकारी डॉ. रोशनी भगत यांनी आयोजन केले होते. दिनांक २९ सप्टेंबर २०२५ या दिवशी महाविद्यालयामध्ये जागतिक हृदय दिवस साजरा करण्यात आला या दिवसाच्या निमित्ताने विद्यार्थ्यांमध्ये पोषण आहार या विषयावर डिश डेकोरेशन स्पर्धेचा आयोजन करण्यात आले होते या स्पर्धेच्या माध्यमातून विद्यार्थ्यांमध्ये पोषण आहाराबद्दल तसेच मानवी हृदय या विषयाच्या निगडित जनजागृती करण्याचा राष्ट्रीय सेवा योजनेचा संकल्प होता यामध्ये महाविद्यालयाच्या ४० विद्यार्थ्यांनी स्पर्धेमध्ये भाग घेऊन उत्कृष्ट तीन विद्यार्थ्यांना प्रथम द्वितीय तृतीय व प्रोत्साहन पर बक्षीस जाहीर करण्यात आले. या कार्यक्रमाचे परीक्षण राष्ट्रीय सेवा योजनेच्या सल्लागार समितीच्या सदस्य डॉ. रेखा केने व डॉ. संपदा पाथरकर यांनी



केले स्पर्धेचे उद्घाटन महाविद्यालयाचे प्राचार्य डॉ. पराग आर. वडनेरकर यांनी केले सदर कार्यक्रमाचे सूत्रसंचालन कु. तन्वी बनसोड हिने केले महाविद्यालयातील सर्व विद्यार्थ्यांनी सहभाग नोंदविला. २ ऑक्टोबर २०२५ ला भारताचे राष्ट्रपिता महात्मा गांधी व माजी पंतप्रधान लाल बहादूर शास्त्री यांच्या जयंतीचे आयोजन करण्यात आले होते जयंती निमित्त अभिवादन कार्यक्रम तसेच स्वच्छता अभियान राबविण्यात आले. महाविद्यालयाचे प्राचार्य तसेच सर्व प्राध्यापक वृंद सर्व शिक्षकेतर कर्मचारी यांनी पुष्प अर्पण करून अभिवादन केले. कु. श्रुती तायवाडे येणी थोरपुरुष यांचा जीवन चरित्र वर माहिती दिली अशा विविध उपक्रमांनी स्वच्छता ही सेवा अभियान विद्यार्थ्यांमध्ये स्वच्छते बद्दल जनजागृती करण्याचा प्रयत्न करण्यात आला.

तसेच ६ डिसेंबर २०२५ ला डॉ. बाबासाहेब आंबेडकर महापरिनिर्वाण दिनानिमित्त अभिवादन कार्यक्रम राबविण्यात आला. ३ जानेवारी २०२६ ला क्रांतीज्योती सावित्रीबाई फुले यांच्या जयंतीचे औचित्य साधून वाचन संवाद कार्यक्रमाचे आयोजन करण्यात आले. सदर कार्यक्रम महाविद्यालयाच्या ग्रंथालय यांच्या संयुक्त विद्यमाने आयोजित करण्यात आला होता. या कार्यक्रमाचे संचालन प्रा. प्रवीण चव्हाण व आभार प्रदर्शन प्रा. मनोज वाघमारे यांनी केले. प्रास्ताविक डॉ. गजानन संतापे यांनी क्रांतीज्योती सावित्रीबाई फुले यांच्या जीवनावर प्रकाश टाकला. या कार्यक्रमाच्या अध्यक्षस्थानी महाविद्यालयाचे प्राचार्य डॉ. पराग वडनेरकर होते. सर्व उपस्थितांनी महाविद्यालयाच्या ग्रंथातील ग्रंथाचे वाचन केले.

दिनांक १९ फेब्रुवारी २०२६ कला संगीत व सांस्कृतिक समिती व राष्ट्रीय सेवा योजना यांच्या संयुक्त विद्यमाने शिव जयंती साजरी करण्यात आली. प्राचार्य डॉ. पराग वडनेरकर यांच्या अध्यक्षतेखाली शिव जयंती चे यशस्वी आयोजन सयमन्वक डॉ. एम. जे. केचे यांनी केले. १२ मार्च २०२६ क्रांतीज्योती सावित्रीबाई फुले यांचा स्मृतिदिन साजरा करण्यात आला. त्याप्रसंगी सर्व महिला प्राध्यापकाचा पुष्प गुच्छ देऊन सत्कार करण्यात आला. दिनांक १९ एप्रिल २०२६ क्रांतीसूर्य महात्मा फुले यांच्या जयंती व डॉ. पंजाबराव देशमुख यांच्या पुण्यतिथी निमित्त अभिवादन कार्यक्रम चे आयोजन करण्यात आले. याप्रसंगी महाविद्यालयाचे प्राचार्य यांनी थोर पुरुषांच्या प्रतिमेस हार अर्पण केले. सर्व उपस्थितांनी थोर पुरुषांना अभिवादन करून कार्यक्रमाची सांगता झाली.

डॉ. बाबासाहेब आंबेडकर यांचे जयंतीचे औचित्य साधून दिनांक १४ एप्रिल २०२६ ला Contribution of Dr. B. R. Ambedkar to Women's Social and Legal Development या विषयावर व्याख्यानाचे आयोजन कला संगीत व सांस्कृतिक समिती यांच्या संयुक्त विद्यमाने करण्यात आले होते. या व्याख्यानासाठी मार्गदर्शक म्हणून सह. प्राध्यापक डॉ. प्रवीण सरदार उपस्थित होते. त्यांनी डॉ. बाबासाहेब आंबेडकर यांनी केलेल्या कार्याचा देशाकरिता दिलेल्या योगदानाचा तसेच विविध क्षेत्रांमध्ये उल्लेखनीय कामगिरीचा आणि त्यांच्या जीवन चरित्राचा सर्व उपस्थितांना आपल्या खास शैलीतून वैचारिक मेजवानी दिली. या कार्यक्रमाकरिता प्रमुख पाहुणे म्हणून अतुल जगताप माध्यमिक विद्यालय मुख्याध्यापक प्रदीप तळोकार, राजर्षी शाहू इंग्लिश स्कूलचे मुख्याध्यापक श्री कुणाल सिंगलवार उपस्थित होते. प्रास्ताविक कार्यक्रम अधिकारी डॉ. गजानन संतापे यांनी केले तर या कार्यक्रमाचे संचालन बी.एससी. भाग १ ची विद्यार्थिनी कु.सानिया शेख हिने केले. याप्रसंगी महाविद्यालयाचे प्राचार्य डॉ. पराग वडनेरकर यांनी अध्यक्षीय भाषण दिले.

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डॉ. रोशनी भगत
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रा.से.यो. विशेष श्रम संस्कार शिबीर

दिनांक ०१ फेब्रुवारी २०२६ ते ०७ फेब्रुवारी २०२६

स्थळ: दत्तक ग्राम धानोरा म्हाली, ता. चांदूर रेल्वे, जिल्हा अमरावती

शाश्वत विकासासाठी युवा : पाणलोट व्यवस्थापन आणि पडीक जमीन विकास

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राष्ट्रीय सेवा योजनेचे विशेष श्रम संस्कार शिबीर दत्तकग्राम धानोरा म्हाली येथे दिनांक १ फेब्रुवारी २०२६ ते ७ फेब्रुवारी २०२६ या दरम्यान राबविण्यात आले. दि. ०१ फेब्रुवारी २०२६ रविवार दुपारी ०४ वा. आगमन, शिबिराची पूर्वतयारी, स्वच्छता गावकऱ्यांशी चर्चा, प्रकल्पाची पाहणी व दुसऱ्या दिवशीच्या श्रमदानाची तयारी, शिबिरार्थी विद्यार्थ्यांना उद्बोधन, उपक्रमाची रूपरेषा आखणी केली. त्यानंतर दि. ०२ फेब्रुवारी २०२६ सोमवार ला ग्राम स्वच्छता, योगासन, प्रार्थना व प्रभातफेरी, अल्पोपहार. श्रमदान (ग्राम स्वच्छता) आटोपल्या नंतर उद्घाटनीय समारंभ आयोजित करण्यात आला. सात दिवसीय शिबिराच्या उद्घाटन कार्यक्रमाला महाविद्यालयाचे प्राचार्य डॉ. पराग वडनेरकर हे अध्यक्षस्थानी उपस्थित होते. तर उद्घाटक म्हणून धानोरा म्हाली च्या सरपंच सौ. वीणाताई प्रदीप निहाटकर व प्रमुख उपस्थिती म्हणून प्रा. सुरेंद्र वाणी तसेच श्री. प्रदीप निहाटकर प्रतिष्ठित नागरिक धानोरा म्हाली हे उपस्थित होते. या कार्यक्रमाचे प्रास्ताविक कार्यक्रम अधिकारी डॉ. गजानन संतापे यांनी केले. सूत्रसंचालन बी.एससी. भाग २ ची विद्यार्थिनी कु. कोमल अत्राम हिने केले. यावेळी प्राचार्य डॉ. वडनेरकर यांनी आपल्या अध्यक्षीय भाषणातून राष्ट्रीय सेवा योजनेचे महत्त्व तसेच शिबिरातून विद्यार्थ्यांमध्ये अमुलाग्र बदल होतो त्यांना शिस्त, वक्तृशीरपण वक्तृत्व, नेतृत्व गुण विकसित होऊन व परिश्रम व समाजाबद्दल आणि देशाबद्दल आपुलकीची भावना विकसित होण्याकरिता प्रोत्साहित करते.

त्यानंतर Journey to Space: अंतराळातील प्रवास या विषयावर बौद्धिक सत्र आयोजित करण्यात आले. या कार्यक्रमाचे अध्यक्ष प्रा. सुरेंद्र वाणी, भौतिकशास्त्र विभाग होते. तर वक्ते म्हणून प्रा. प्रवीण गुल्हाणे, मराठी विज्ञान परिषद, श्री विजय गिरोळकर, हौसी खगोल अभ्यासक प्रमुख उपस्थिती डॉ. अश्विन पाचकवडे, भौतिकशास्त्र विभाग, डॉ. रोशनी भगत, भौतिकशास्त्र विभाग प्रा. मधुकर हांडे भौतिकशास्त्र विभाग उपस्थित होते.

दि. ०३ फेब्रुवारी २०२६ ला पाणी फाउंडेशन वॉटर कप या उपक्रमा अंतर्गत उत्कृष्ट पुरस्कार प्राप्त व्यक्ती म्हणून उपस्थित असलेले मा. श्री. रुपेश जी रेंगे यांनी शिबिरार्थींना जलसंधारण चला जगूया आपल्या माणुसकीला या विषयावर विविध पर्यावरण पूरक गोष्टींचे विश्लेषण करून उत्तम प्रकारे मार्गदर्शन केले. या सत्राकरिता प्रा. अण्णा पाटील अध्यक्ष म्हणून उपस्थित होते. त्यानंतर दुपारच्या सत्रामध्ये नवीन तंत्रज्ञानाद्वारे फळबाग व्यवस्थापन या विषयावर डॉ. नीरज निस्ताने सहाय्यक प्राध्यापक शिवाजी उद्यान विद्या महाविद्यालय अमरावती तसेच फुलशेती व व्यवस्थापन या विषयावर डॉ. मयूर गावंडे सहाय्यक प्राध्यापक शिवाजी उद्यान विद्या महाविद्यालय यांनी स्लाईडशो दारे व्याख्यान दिले. या सत्राला वनस्पती शास्त्र विभाग प्रमुख डॉ. एम. जे. के. के. यांच्या अध्यक्षतेखाली हे सत्र संपन्न झाले. या सत्राला प्रमुख उपस्थिती म्हणून डॉ. प्रवीण सरदार सहाय्यक प्राध्यापक वनस्पतीशास्त्र विभाग हे प्रामुख्याने उपस्थित होते. त्यानंतर शिबिरार्थींनी गावकरी यांच्याकरिता लोकप्रबोधनत्मक कार्यक्रम तसेच सांस्कृतिक कार्यक्रम सादर केला.

दि. ०४ फेब्रुवारी २०२६ ला ग्रामीण रुग्णालय चांदूर रेल्वे व राष्ट्रीय सेवा योजना यांच्या संयुक्त विद्यमाने आरोग्य शिबिराचे आयोजन करण्यात आले होते. या शिबिरामध्ये श्री अमित बेलसरे समुपदेशक तसेच वैद्यकीय अधिकारी ग्रामीण रुग्णालय चांदूर रेल्वे यांनी शिबिरार्थींना व गावकऱ्यांना आरोग्यविषयक मार्गदर्शन केले. या शिबिराच्या अध्यक्षस्थानी रसायनशास्त्र विभाग प्रमुख डॉ. आशिष बनसोड तर प्रा. ममता पळसपगार यांची प्रमुख उपस्थिती होती. दुपारच्या सत्रामध्ये सकारात्मक दृष्टिकोन आणि ताण नियंत्रण या विषयावर सहजयोग ध्यान केंद्र, अमरावती येथील जिल्हा समन्वयक श्री वैभव घुसे यांनी मार्गदर्शन केले. याप्रसंगी अतुल जगताप माध्यमिक विद्यालय चांदूर रेल्वेचे मुख्याध्यापक श्री प्रदीप जी तळोकार हे अध्यक्ष म्हणून उपस्थित होते. तर प्रा. प्रवीण चव्हाण, प्रा. पी. आर. देशमुख यांची प्रमुख उपस्थिती होती. त्यानंतर रात्री आठ वाजता राष्ट्रीय सेवा योजनेच्या शिबिरार्थींनी सांस्कृतिक कार्यक्रम सादर केला.

दि. ०५ फेब्रुवारी ला बौद्धिक सत्रामध्ये कृत्रिम बुद्धिमत्ता व संतांची शिकवण या विषयावर डॉ. नंदकिशोर थोरात प्राणीशास्त्र विभाग विद्याभारती महाविद्यालय अमरावती यांनी विद्यार्थ्यांना मार्गदर्शन केले. तसेच विद्यार्थ्यांचे पर्यावरण रक्षणाकरिता महत्वाची भूमिका या विषयावर डॉ. योगेश आखरे प्राणीशास्त्र विभाग प्रमुख विद्याभारती महाविद्यालय अमरावती यांनी व्याख्यान दिले. या सत्राकरिता रसायनशास्त्र विभागाचे सहाय्यक प्रा. डॉ. अमोल ठाकरे हे अध्यक्ष म्हणून उपस्थित होते. तर या कार्यक्रमाला डॉ. मनोज



वाघमारे ग्रंथपाल यांची प्रमुख उपस्थिती होती. दुपारच्या सत्रामध्ये स्पर्धा परीक्षा मार्गदर्शन व महाराष्ट्रातील थोर समाज सुधारक या विषयावर डॉ. संघपाल पाढेन सहयोगी प्राध्यापक रसायनशास्त्र विभाग यांनी विद्यार्थ्यांना मार्गदर्शन केले.या सत्राकरिता प्रा. असलम खान शारीरिक शिक्षण संचालक यांनी अध्यक्षस्थान भूषविले.त्यानंतर नामवंत गायक कलाकार श्री.विवेक राठोड अमरावती यांनी सांस्कृतिक कार्यक्रमांमध्ये विद्यार्थ्यांना आपल्या विशिष्ट शैलीतून वेगवेगळ्या हिंदी मराठी गाण्यांच्या माध्यमातून मंत्रमुग्ध केले.

त्यानंतर दि. ०६ फेब्रुवारी २०२६ ला महिला सक्षमीकरणांमध्ये समाज माध्यमांचा सहभाग या विषयावर प्रा. अनिता धुर्वेअर्थशास्त्र विभाग प्रमुख महिला महाविद्यालय चांदूर रेल्वे यांचे व्याख्यान झाले.या व्याख्यानाला महाविद्यालयाच्या गणित विभाग प्रमुख डॉ. रेखा केने या अध्यक्ष म्हणून उपस्थित होत्या. तसेच या सत्राला प्रा.सोनू देशमुख, प्रा. पल्लवी हांडे, प्रा. भाग्यश्री बेलसरे व प्रा. सरोसरे यांची प्रमुख उपस्थिती होती.त्यानंतर सर्व गावकरी व शिबिरार्थींना सामूहिक भोजनाची मेजवानी देण्यात आली. व रात्रीला सांस्कृतिक कार्यक्रमाचे आयोजन करण्यात आले होते.

दि. ०७ फेब्रुवारी २०२६ ला ग्राम स्वच्छता योगासन, प्रभात फेरी व अल्पपोहार आटोपल्यानंतर स्वच्छता अभियान राबविण्यात आले.आणि सरते शेवटी शिबिराचा समारोपय कार्यक्रम डॉ. रेखाकेने यांच्या अध्यक्षतेखाली प्रमुख अतिथी म्हणून सौ.विनाताई निहाटकर,सरपंच ग्रामपंचायत धानोरा माली व प्रतिष्ठित नागरिक श्री. प्रकाशजी इंगळे ,श्री.बाळासाहेब बोडे यांच्या उपस्थितीत संपन्न झाला.सात दिवसीय विशेष संस्कार शिबिरा मध्ये खालील दिलेल्या विविध विषयावर गटचर्चा करण्यात आली.

युवा जागर, समाज माध्यमांचा अतिरेकी वापर,थोर समाज सुधारणांचा वैज्ञानिक दृष्टिकोन, पर्यावरण शपथ, स्वच्छता अभियान, अंधश्रद्धा निर्मूलन, बालविवाह,बेटी बचाव बेटी पढाव ,महिलांचा पंचायत राज व राजकारणामधील सहभाग, स्वयंरोजगार कौशल्य विकास, स्वच्छ भारत स्वस्थ भारत या विषयावर आयोजन करण्यात आले.

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Equal Opportunity Cell

Guest Lecture on Ekatma Manav-darshan (27th September 2025)

The Equal Opportunity Cell of Rajarshee Shahu Science College, Chandur Railway organized a Guest Lecture on the topic “Ekatm Manavdarshan” on 27th September 2025 at 9:00 a.m. The resource person for this lecture was Mr. Manoj Waghmare, who delivered an insightful and thought-provoking session on the concept of Ekatm Manavdarshan, emphasizing its philosophical and social relevance in contemporary society. The program was graced by the presence of Dr. P. R. Wadnerkar (Principal), IQAC Coordinator Mr. S. A. Wani, and Dr. M. J. Keche. The event was successfully organized under the guidance of Dr. Pravin R. Sardar. Anchoring for the program was efficiently conducted by Ku. Komal Atram. The session concluded with a vote of thanks, expressing gratitude to the resource person and dignitaries for their valuable contribution to the program.

Sanskrit Saptah (5th August to 12th August)

The Equal Opportunity Cell of Rajarshee Shahu Science College, Chandur Railway successfully organized Sanskrit Saptah from 5th August to 12th August 2025. The celebration aimed to promote the awareness, beauty, and cultural significance of Sanskrit—the mother of many Indian languages—and to encourage students to develop an interest in learning and using the language. As part of this week-long celebration, the following competitions and activities were organized:

1. Sanskrit Anulekhan Competition – 6th August 2025

Students participated enthusiastically in the Sanskrit handwriting competition, showcasing their skills in neatness, accuracy, and correct usage of grammar. The event helped in improving their writing abilities and deepened their understanding of Sanskrit script.

2. Sanskrit Phalak-lekhan Competition – 11th August 2025

This competition involved creative writing in Sanskrit on given themes. Participants displayed originality and linguistic skill while expressing ideas in the classical language. It encouraged them to think creatively within the structure of Sanskrit grammar.

3. Sanskrit Shloka Translation Competition – 12th August 2025

The final event of the week tested the participants' comprehension and translation skills. Students translated given Sanskrit shlokas into Marathi with accuracy and clarity. This activity not only enhanced their vocabulary but also connected them with the moral and philosophical essence embedded in Sanskrit literature. Throughout the week, students participated with great enthusiasm and dedication. The competitions fostered a sense of pride in India's linguistic heritage and highlighted the importance of Sanskrit in understanding the country's cultural and intellectual traditions. The Equal Opportunity Cell played a key role in planning and executing the activities, ensuring smooth coordination and active student engagement. In his concluding remarks, Dr. Parag Wadnerkar (Principal) appreciated the participants for their keen interest and lauded the organizing team for their dedication. He emphasized the need to preserve and promote Sanskrit for future generations as it forms a vital link to India's cultural roots. Overall, Sanskrit Saptah 2025 proved to be a meaningful and enriching experience for all, leaving a lasting impression on students about the timeless value of the Sanskrit language. Dr. Pravin R. Sardar



was Organized entire events.

Constitution Day-2025 (Preamble Reading) (26/11/2025)

The Constitution Day of India was celebrated with great respect and enthusiasm at Rajarshee Shahu Science College, Chandur Railway on 26 November 2025. The Equal Opportunity Cell and Library Department jointly organised a series of programs aimed at spreading constitutional awareness among students. The events included the Preamble Reading Program, Essay Competition, and Online Quiz Competition.

1. Preamble Reading Program

The Constitution Day celebration commenced at 12.30 p.m. with the collective reading of the Preamble of the Indian Constitution. Students, faculty members, and non-teaching staff actively participated in the reading, reaffirming their commitment to the constitutional values of Justice, Liberty, Equality, and Fraternity. The program was presided over by Principal Dr. P. R. Wadnerkar, who addressed the gathering and highlighted the importance of upholding constitutional values for building a responsible society. Dr. V. Kambli attended as the Chief Guest and delivered an informative and inspiring speech on the ideals and spirit of the Indian Constitution. The program was organized by Dr. P. R. Sardar and Dr. S. S. Padhen, who ensured smooth coordination and participation.

2. Essay Competition

As part of the celebrations, an Essay Competition was conducted for students on topics related to the Constitution of India. The objective of the competition was to promote understanding of constitutional values, structure, and the role of the Constitution in shaping responsible citizenship. A total of 140 students participated with great enthusiasm. Essays were evaluated based on content, clarity, originality, and presentation.

Prize Winners (College Section):

First Prize – Ku. Ashatha Ganjare, Second Prize – Ku. Bhakti Wankhade, Third Prize – Ku. Kashmira. The competition encouraged students to think deeply about constitutional principles and their relevance in contemporary society.

3. Online Quiz Competition on Constitution Awareness

To further strengthen constitutional literacy among students, an Online Quiz Competition was organized by the Equal Opportunity Cell and Library Department. The quiz consisted of objective-type questions based on the Indian Constitution, fundamental rights, duties, and historical background. Students who secured 80% or above were automatically awarded E-Certificates, which received an overwhelming response from participants. The quiz served as an effective tool to test and enhance the students' knowledge about the Constitution in an engaging manner. The Constitution Day celebrations at Rajarshee Shahu Science College, Chandur Railway successfully fulfilled their objective of spreading constitutional awareness and promoting active participation among students. The combined activities of Preamble reading, essay writing, and online quiz enriched the understanding of constitutional values and inspired students to adopt these principles in their academic and personal lives.

Subhash Chandra Bose Birth Anniversary (23rd January 2026)

The Birth Anniversary of Netaji Subhash Chandra Bose was celebrated with great enthusiasm at Rajshahi Shahu Science College, Chandur Railway on 23 January 2026. The programme was organized by the Equal Opportunity Cell of the college with the aim of inspiring students with the patriotic ideals and leadership qualities of Netaji Subhash Chandra Bose. On this occasion, Dr. S. P. Patharkar delivered an enlightening lecture highlighting the life, sacrifices, and contributions of Netaji Subhash Chandra Bose to India's freedom struggle. The lecture motivated students to imbibe values such as patriotism, courage, discipline, and dedication towards the nation. After the lecture, a group discussion was organized for B.Sc. students, in which students actively participated and shared their views on Netaji's ideals and relevance in contemporary times. The discussion encouraged critical thinking, communication skills, and teamwork among the students. The entire programme was successfully organized by Dr. P. R. Sardar under the guidance of Principal Dr. P. R. Wadnerkar. The principal appreciated the sincere efforts taken by the faculty members and the enthusiastic participation of students, which contributed to the success of the programme.

Run for Swadeshi on the Occasion of Swami Vivekanand Jayanti (12/01/2026)

The NCC Unit and Equal Opportunity Cell of Rajarshee Shahu Science College, Chandur Railway, jointly organized a running competition titled "Run for Swadeshi" on the occasion of Swami Vivekanand Jayanti, on 12 January 2026, at the college campus. The program aimed to promote patriotism, physical fitness, and youth awareness. 2 km running competition was organized, in which college students and NCC cadets participated with great enthusiasm and sportsmanship. The program was formally inaugurated by the Honorable Principal, Dr. P. R. Wadnerkar Sir. The entire event was successfully organized under the guidance of Dr. S. S. Padhen, Convener of NCC, and Dr. P. R. Sardar, Convener of the Equal Opportunity Cell. At the end of the program, the principal appreciated the efforts of the organizers and participants. In his concluding remarks, he emphasized that such activities help in creating awareness about physical fitness and national values among students. He congratulated all the winners and organizers for the successful execution of the event. The program concluded on a positive note with active participation and motivation among students.

Guest Lecture and Group Discussion on Veer Balak Divas(26thDecember 2025)

Veer Balak Divas was celebrated with great enthusiasm at Rajshahi Shahu Science College, Chandur Railway on 26th December 2025. The programme was organized by the Equal Opportunity Cell of the college with the objective of creating awareness about courage, sacrifice, and values among students. On this occasion, Dr. S. P. Patharkar delivered an inspiring lecture highlighting the significance of Veer Balak Divas and the bravery of young heroes in Indian history. The lecture motivated students to develop patriotism, discipline, and moral values in their lives. Following the lecture, a group discussion was organized for B.Sc. students, in which students actively participated and expressed their thoughts confidently. The discussion encouraged critical thinking, teamwork, and effective communication among students. The entire programme was successfully organized by Dr. P. R. Sardar under the guidance of Principal Dr. P. R. Wadnerkar. The principal appreciated the sincere efforts taken by the faculty members and the enthusiastic participation of students, which contributed to the success of the event. The programme concluded on a positive note, leaving a lasting impact on the students.

► **Dr. Pravin R. Sardar**
Convenor
Equal Opportunity Cell



Unnat Bharat Abhiyan

Grampanchayat Study Visit and Gramsabha on the occasion of Independence Day

On the occasion of 15th August 2025, a Grampanchayat Study Visit was organized at the Rajana Grampanchayat Office, Taluka Chandur Railway under the Unnat Bharat Abhiyan (UBA) activity of Rajarshee Shahu Science College, Chandur Railway. The program was coordinated by Convener Dr. Pravin R. Sardar and Co-convener Dr. S. S. Padhen. The visit began with a Tree Sapling Distribution and Tree Plantation Program, highlighting the importance of environmental conservation and community participation in sustainable development. After the plantation activity, students interacted with the Sarpanch, Mr. Dhananjay Gawande, who provided detailed information about the structure, functioning, and responsibilities of the Grampanchayat. In his address, the Sarpanch explained various government schemes for rural development, such as those related to agriculture, sanitation, women empowerment, education, and infrastructure. He also shared insights into how the Grampanchayat ensures the effective implementation of these schemes for the welfare of villagers. Students were given a practical understanding of local self-governance, decision-making processes, and the importance of people's participation in village development. They observed firsthand how the Grampanchayat functions as a democratic institution at the grassroots level. The visit concluded with an interactive session where students asked questions and received valuable guidance from the Sarpanch and Grampanchayat members. The study visit proved to be highly informative, enhancing students' knowledge about rural governance, sustainable development, and community welfare.

Gramsabha and Grampanchayat Study Tour on the occasion of Republic Day

Under Unnat Bharat Abhiyan-2, Rajarshee Shahu Science College, Chandur Railway organized a Gramsabha and Grampanchayat Study Tour for students with the objective of creating awareness about rural governance, administrative functioning, and various government welfare schemes at the grassroots level. The program was successfully organized under the guidance and coordination of Convener Dr. P. R. Sardar and Dr. S. S. Padhen. The program commenced with the distribution of tree saplings to villagers, emphasizing the importance of environmental conservation and sustainable development. This activity encouraged community participation and sensitized students as well as villagers about the need for ecological balance. During the visit, the students were warmly welcomed by Sarpanch Shri. Dhananjay Gawande, Upsarpanch Mrs. Jalitkar Madam, Secretary Mrs. Sonone Madam, Member Mrs. Bhond Madam, and other respected Grampanchayat Committee members. The presence of the entire committee made the interaction highly informative and effective. Sarpanch Shri Dhananjay Gawande and Secretary Mrs. Sonone Madam explained in detail the structure, functioning, and administrative responsibilities of the Grampanchayat. They also provided comprehensive information about various government schemes and development programs implemented for villagers, including schemes related to sanitation, water supply, education, health, women empowerment, and rural development. The session helped students understand the practical aspects of local self-governance. The interaction between students and Grampanchayat members was highly interactive, where students actively participated by asking questions and clarifying their doubts regarding rural administration and public welfare schemes. This exposure enhanced students' practical knowledge beyond classroom learning.

► **Dr. Pravin R. Sardar**
Convener
Unnat Bharat Abhiyan

Department of Physics

About Department of Physics:

Established in 2008, the Department of Physics is devoted to cultivating a spirit of scientific inquiry, innovation, and intellectual excellence. Supported by a team of three qualified faculty members and one skilled laboratory attendant, the department offers a rigorous academic environment combined with practical, research-driven learning. To enhance co-curricular engagement and promote scientific discourse, the department annually institutes the Sir C.V. Raman Physics Society. Under its banner, a range of enriching activities are conducted to stimulate creativity and holistic development.

1. Inauguration of the Sir C. V. Raman Physics Society and Constitution of the Student Association (2025-26)

The Department of Physics successfully organized the inauguration of the Sir C. V. Raman Physics Society on 21 August 2025 in the Physics Laboratory with the objective of promoting scientific temper and interest in Physics among students. The programme began with the ceremonial lamp lighting, puja, and floral tribute to Sir C. V. Raman and Rajarshi Shahu Maharaj. The Head of the Department, Mr. S. A. Wani, welcomed the gathering and highlighted the importance of the Physics Society. The society was formally inaugurated by Dr. A. D. Bansod, Associate Professor, Department of Chemistry. Dr. A. P. Pachkawade announced the Student Association for 2025-26, and the office bearers were felicitated by Dr. Bansod. In his address, he congratulated the students and encouraged them to actively participate in academic activities such as seminars, workshops, quizzes, and exhibitions. The programme concluded with a vote of thanks by Prof. Dr. Roshni N. Bhagat, while Ms. Sania Sheikh efficiently anchored the event.

2. Quiz Competition on occasion of National Space Day:

On the eve of National Space Day, the Department of Physics organized a Quiz Competition to promote awareness and interest in space science, astronomy, and India's achievements in space technology. Five teams comprising B.Sc. I, II, and III students participated enthusiastically in various quiz rounds covering space missions, satellites, planets, scientists, and recent developments in space research. The team "Eclipse Squad" emerged as the winner and was felicitated by Prof. S. A. Wani, Prof. Dr. A. P. Pachkawade, and Prof. Dr. R. N. Bhagat. The event was successfully planned and conducted by the Physics Study Board under the leadership of Shri Prathamesh Bobde (Chairman) and Ms. Pratiksha Tale (Vice President).

3. Guest Lecture on "Exploring Career Pathways in Physics"

The Department of Physics organized a guest lecture on 3 October 2025 on the topic "Exploring Career Pathways in Physics". The programme was inaugurated at the hands of Principal Dr. Parag R. Wadnerkar, who, in his remark, appreciated the initiative and encouraged students to explore the wide scope of physics in academics, research, and industry. The session was delivered by Dr. S. G. Vidhale, Assistant Professor, Adarsha Science Mahavidyalaya, Dhamangaon Railway. The lecture highlighted diverse career opportunities in physics, including higher education, research, teaching, competitive examinations, internships, and emerging interdisciplinary fields. Students actively participated in the interactive session and gained valuable guidance on career planning and skill development. The programme concluded with a vote of thanks by Ms. Pratiksha Tale.



4. Model Making Competition

The Department of Physics, under the Sir C. V. Raman Physics Society (2025-26), organized a Model Making Competition on 3 October 2025 to promote creativity, innovation, and practical understanding of physics concepts. The programme was inaugurated by Principal Dr. Parag R. Wadnerkar in the presence of Dr. S. G. Vidhale, who served as the judge. A total of 64 students (16 teams) participated by presenting innovative models on various physics concepts. The Hologram model secured the First Prize, while Satellite Communication won the Second Prize. Cash prizes of Rs. 1,000 and Rs. 500 were awarded to the winning teams. The programme concluded with a vote of thanks by Ms. Pratiksha Tale.

5. Guest Lecture on "Journey to Space" and Astronomical Observation:

The Department of Physics, in collaboration with the NSS, organized a guest lecture on 2 February 2026 titled "Journey to Space", followed by a hands-on astronomical observation session. The programme commenced with the presence of Prof. S. A. Wani (IQAC Coordinator and Head, Department of Physics), Dr. G. B. Santape (NSS Coordinator), Shri Pravin Gulhane (President, Marathi Vidnyan Parishad, Amravati Division), Shri Vijay Girolkar and Shri Vaibhav Anasane (Members, Marathi Vidnyan Parishad), Dr. A. P. Pachkawade, Dr. R. N. Bhagat, and Shri Madhukar Hande. Shri Vijay Girolkar delivered an informative guest lecture on space exploration, while Shri Pravin Gulhane conducted a practical sky observation session using premium telescopes. Students enthusiastically observed the Moon, Jupiter and its satellites, and Saturn with its rings, making the programme an enriching and memorable learning experience that enhanced their interest in astronomy and space science.

6. Educational Visit to Dr. Panjabrao Deshmukh Memorial Science Centre, Amravati

The Department of Physics organized a one-day educational visit to Dr. Panjabrao Deshmukh Memorial Science and Innovation Activity Centre, Amravati, on 1 April 2026. A total of 39 students participated in the visit to gain hands-on exposure to scientific models, innovation exhibits, and experimental activities. The students were guided by Dr. Pankaj Nagpure, Director of the Centre, along with Ms. Trupti Shelke and Ms. Dhanashree Ingole, who explained various scientific concepts and their practical applications. The visit enhanced students' scientific temper, observational skills, and interest in research and innovation. The programme was successfully organized under the guidance of Prof. S. A. Wani, Dr. A. P. Pachkawade, Dr. R. N. Bhagat, and Prof. Pallavi Deshmukh.

7. Industrial Visit to Aai Mauli Industries (Water Bottling Plant)

The Departments of Physics and Electronics organized a one-day industrial visit to Aai Mauli Industries (Water Bottling Plant) on 1 April 2026. The visit provided students with practical exposure to water purification, filtration, bottling, sealing, labelling, quality control, and packaging processes.

Shri Abhijeet R. Abdeo, Director of Aai Mauli Industries, explained the complete water processing and bottling system, highlighting the application of physics, electronics, sensors, and automation in industry. The visit enhanced students' technical knowledge, industrial awareness, and career outlook. The programme was successfully organized under the guidance of Prof. S. A. Wani, Dr. A. P. Pachkawade, Dr. R. N. Bhagat, and Prof. Pallavi Deshmukh.

► **Prof. Surendra A. Wani**
Assistant Professor and Head
Department of Physics

CAREER KATTA



An interview of Res. Pooja Matode (Tehsildar, Chandur Railway) conducted by the students of Career Sansad.



An interview of Res. Sharad Nivrutti (PSI, Chandur Railway) conducted by the students of Career Sansad.

NATIONAL SCIENCE DAY (NSD)



8th, 9th & 11th std. students participated in the poster competition on NSD-2026



B.Sc. students participated in the poster competition on NSD-2026



Winners of the NSD-2026 poster competition were felicitated for their creativity and presentation.

NCC ACTIVITIES



Parade on Republic day



NCC Regular Parade



Hon. President Prof. Sau. Uttaratai V. Jagtap with NCC Cadets



Publication of Research Book



Celebration of Shiv Jayanti



Tribute to Sant Gadge Baba on Occasion of 159th Death Anniversary



Free Memmography Screening Camp for Women



Orientation Program for Newly Admitted Students 2025-26



Eco-friendly Ganesh Festival



Celebration of Birth Anniversary of Mahatma Gandhi & Lal Bahaddur Shashtri