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Dr. D. Y. Patil College of Engineering and Innovation, Varale, Talegaon, Pune

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ODn D. Y/Patil College of Engineering and Innovation, Pune

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Vision

To achieve excellence in quality education through value based rapidly changing technologies and create technical Human-Resource with proficiencies of accepting new challenges.

Mission

- M1 Continuously strive to impart value-based education to elevate the satisfaction level of all stakeholders.
- M2 Take dedicated efforts to create competent professionals by effective teaching learning process with passion of lifelong learning attitude.
- M3 Our endeavor is to promote and support innovative research, entrepreneurship and development activities through Industry Interaction.

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Faculty Participation

Faculty Development Program



Prof. (Dr.) Alpana Adsul, Head, Dept. of Computer Engineering successfully completed Microsoft, SAP & AICTE sponsored Faculty Development Program "Applied

Cloud Computing for Full Stack Web Development" under TechSaksham from 4th – 8th December 2023.

Cloud computing and full-stack development technologies can be used together to deploy, scale, and maintain web applications easily and efficiently. Full-stack web development means developing the front-end and back-end of any web application.



Certificate of FDP on "Applied Cloud Computing for Full Stack Web Development" under TechSaksham from 4th – 8th December 2023.

Full-stack developers are responsible for the user interface (UI), the user experience (UX), and the underlying code that runs the web application. Fullstack developers normally utilize various programming languages and technologies, such as CSS, JavaScript, HTML, Python, Java, PHP, etc. Full-stack web development also includes different web architecture and design principles. There are numerous advantages of using cloud computing and full-stack development together for web applications, which are listed below.

- Decreased Costs, High Agility, Enhanced Security.
- Better Collaboration, Scaling.
- Reach Global audience and Experiment with New Ideas.
- Stay Up-to-date with The Latest Technologies.

Faculty Participation

Conference Publication



Mr. T. Arivanantham, Assistant Professor, Department Computer Engineering presented paper on" Forecasting Employees Churn Analysis using Selected Machine Learning Models"

The paper was published at the 2nd International Conference on Automation, Computing and Renewable Systems (ICACRS-2023).

In the context of a business setting, the process of analysing and measuring the rate at which workers leave a company, as well as determining which people are most likely to depart, is referred to as employee churn analytics. This kind of analysis may also be used to anticipate which individuals are most likely to leave.



Certificate of participation at the 2nd International Conference on Automation, Computing and Renewable Systems (ICACRS-2023).

Because of the continuously shifting requirements in many businesses, workers often find themselves in а position to pursue new employment opportunities. Because of this, companies are obligated to look for potential successors who already have the experience and education necessary to properly carry out the tasks that are involved with the role. In the event that a bottleneck occurs, the corporate sector will be required to make extra financial investments in order to return the organization's workday to its previously established pattern of operation. During the course of investigation, the study analysis number of machine learning (ML) algorithms that concentrate on reviewing the history of an employee and evaluating а variety of characteristics in an efficient way.

The purpose of these methods is to determine whether or not the employee will continue working for the firm or will at some point in the future depart the business.



Mr. T. Arivanantham published paper on" Virtual Mouse and Keyboard Based on Human Gestures using Machine Learning" in IRJMETS Volume 05 Issue 11 November 2023.

Virtual Mouse and Keyboard Based on Human Gestures using Machine Learning: Now a day's computer vision has reached its pinnacle, where a computer can identify its owner using a simple program of image processing. In this stage of development, people are using this vision in many aspects of day to day life, like Face Recognition, Color detection, Automatic car, etc. In this project, computer vision is used in creating an Optical mouse and keyboard using hand gestures. The camera of the computer will read the image of different gestures performed by a person's hand and according to the movement of the gestures the Mouse or the cursor of the computer will move, even perform right and left clicks using different gestures. Similarly, the keyboard functions may be used with some different gestures, like using one

finger gesture for alphabet select and four-figure gesture to swipe left and right. It will act as a virtual mouse and keyboard with no wire or external devices. The only hardware aspect of the project is a web-cam and the coding is done on python using Anaconda platform. Here the Convex hull defects are first generated and then using the defect calculations an algorithm is generated and **mapping the mouse and keyboard functions with the defects.**

Faculty Participation

Conference Publication



Mr. Vishal Borate, Assistant Professor, Department of Computer Engineering published paper on "Design of Low- cost Wireless Noise

Monitoring Sensor Unit based on IOTConcept" in a Journal of EmergingTechnologiesandInnovationResearch(JETIR)Volume10IssueDecember 2023.



Certificate of participation in Journal of Emerging Technologies and Innovation Research (JETIR) Volume 10 Issue 12 December 2023. Volume 3 Edition 12 December 31, 2023

The rapid growth of wireless sensor networks (WSN) in urban areas has created the potential for development of significant volumes the of information data from environmental monitoring systems, with excessive urban noise pollution ranking as one of the most alarming. The low-cost wireless sensor networks offer a technique for achieving data collecting and analysis with a higher level of granularity than the usual noise mapping procedures, which involve an expensive and timeconsuming measuring process using a classic high-priced noise level meter. The Internet of Things (IoT) and the concept of a "smart city" are presented in this study as a framework for a wireless noise sensor unit design for continuous environmental noise level monitoring. The idea includes the entire noise data information system, starting with sensors.



Mr. Vishal Borate published paper on "Fire Evacuation System Using IOT & AI" in IJRAR Volume 10 Issue 4 November 2023.

Fire Evacuation System Using IOT & AI: The Internet of Things (IoT) is an environment in which physical devices can transmit data over a network, thus eliminating human-human or human-computer interactions.

The Internet of Things refers to a network that connects everything through sensors and communication devices, including the connection between objects, people, and objects.

Research efforts are looking at technologies that enable objects to communicate with each other and with their users to provide information and/or complete tasks. An emergency is a serious, unexpected and often dangerous problem that immediate attention. Early warning requires systems (EWS) are increasingly used to reduce the risks posed by natural disasters and provide early warning. Internet of Things (IoT)-based evacuation (EES) emergency services are designed to make evacuations more efficient, safer, and less expensive. Arduino Mega Sens sensors connected to temperature, humidity and vibration values. If any of these values exceed the threshold, an LED warning light will illuminate.

Residents of the home were alerted via mobile phone. The app also guides you to the nearest safety post and provides directions based on your location. Evacuation information can help people find the right escape route. Therefore, emergency evacuation is not just a preparation exercise.



Mr. Vishal Borate published paper on "A Novel Approach for Filtration of Spam using NLP" in IJRAR Volume 10 Issue 4 November 2023.

A Novel Approach for Filtration of Spam using **NLP:** Email is a crucial tool for business correspondence in the current era of technological communication. As a result, it is now more important than ever to precisely classify emails as either spam or real (ham). The problem is not only in selecting the best classifier but also in dealing with poison and impersonation attacks, even though standard methods for spam detection generally rely on text-based or collaborative approaches. Email content analysis is combined with social network and email-related characteristics in our suggested model to provide a powerful spam filtering solution. Header parsing is done on incoming emails to assess the sender's reliability and standing among recipients. The topic of the email is determined using keyword parsing, which makes use of LDA and Gibbs Sampling. The model also takes into account the number and quality of connections people have within social networks.

Science Exhibition

e-Bulletin DYPCOEI

Talent of School Students

Dr D. Y. Patil College of Engineering and Innovation, Varale, proudly hosted a two-day taluka level science exhibition on 27th and 28th December 2023 for school students. This exciting event brought together young minds from across the taluka, igniting their curiosity and passion for science. The exhibition hall brimmed with creativity and innovation. 257 students from various schools showcased their projects, covering a diverse range scientific disciplines. From physics of and chemistry to biology and environmental science, the exhibits tackled real-world problems and explored cutting-edge research.



Dr. Suresh Mali, Principal DYPCOEI, Vareke Talegaon is Inaugurating the Function

Projects with Practical Applications: Some students impressed everyone with their practical projects. One such project demonstrated how to generate electricity from waste fruits and vegetables, highlighting the potential for sustainable energy solutions.

Another group presented a water purification system made from easily available materials, addressing the need for clean water in rural areas.

Inspiring Curiosity: Other exhibits focused on sparking curiosity and promoting scientific thinking. Interactive models of the human body, solar systems, and volcanic eruptions engaged young minds and encouraged them to delve deeper into the wonders of science.

Event was coordinated by Mr. Sharad Jadhav, Mrs. Anita Shinkar, Mr. Chandan Wagh, Mr. Shivaji Patil, Ms. Minakshi Sonawane, Mr. Dnyanesh Gaikwad and Mr. Deepak Pawar faculties of DYPCOEI.

The taluka level science exhibition at Dr D. Y. Patil College of Engineering and Innovation, Varale served as a stepping stone for many young minds on their journey into the world of science.



Prof. (Dr.) Suresh Mali, Principal DYPCOEI, and other dignitaries reviewing the projects

It instilled in them a passion for knowledge, a spirit of inquiry, and the confidence to explore the

unknown. We believe that this event will have a lasting impact on the participants, shaping them into future scientists, innovators, and problem-solvers.



Students demonstrating their innovative idea to Mr. Shivaji Patil, Mr. C. S. Wagh and Mr. Sharad Jadhav Faculties DYPCOEI.

The event wasn't just about showcasing projects; it was also a platform for learning and interaction. Renowned scientists and researchers addressed the students, sharing their knowledge and inspiring them to pursue careers in science. Interactive workshops on various scientific topics provided hands-on learning experiences, further igniting the young minds' curiosity.



Students demonstrating their innovative idea to Mrs. Anita Shinkar and Mr. Dnyanesh Gaikwad.



Students demonstrating their innovative idea to Mrs. Minakshi Sonawane, Faculty DYPCOEI.

Celebrating Innovation: Prizes were awarded to the most outstanding projects, recognizing the students' hard work and ingenuity.

But beyond the competition, the true reward was the sense of accomplishment and the newfound love for science that the exhibition fostered in the participants.



Prize Distribution taluka level science exhibition on 27th and 28th December 2023 The success of the exhibition was a testament to the collaborative efforts of our college faculty, staff,

students, and volunteers. Their dedication and hard work created a welcoming and stimulating environment for the young participants.

विज्ञान प्रदर्शनात २५७ विद्यार्थ्यांचा सहभाग

वडगाव मावळ : पढारी वत्तसेवा मावळ तालुका माध्यमिक, उच्च माध्यमिक शाळा मुख्याध्यापक संघ, मावळ तालुका विज्ञान अध्यापक संघ व डॉ. डी. वाय. पाटील एज्युकेशन फेडरेशन, वराळे यांच्या संयुक्त विद्यमाने आयोजित केलेल्या ५१ व्या तालुकास्तरीय विज्ञान प्रदर्शनात २५७ विद्यार्थी व शिक्षकांनी सहभाग घेतला होता.

तालुकास्तरीय विज्ञान प्रदर्शनाचे उद्घाटन गट शिक्षणाधिकारी सुदाम वाळुंज यांचे हस्ते करण्यात आले. या वेळी डॉ. डी. वाय. पाटील एज्युकेशन फेडरेशनचे प्राचार्य डॉ. सुरेश माळी, प्राचार्य प्रमोद पांडे, जिल्हा मुख्याध्यापक संघाचे उपाध्यक्ष राजेश गायकवाड, मावळ तालुका मुख्याध्यापक संघाचे अध्यक्ष विठ्ठल माळशिकारे, सचिव विकास तारे, मावळ तालुका विज्ञान अध्यापक संघाचे सुरेश सुतार, चंद्रकांत मरूमकर, संतोष भोसले,



तालुकास्तरीय विज्ञान प्रदर्शनाचे उद्घाटन करताना गट शिक्षणाधिकारी सुदाम वाळुंज व इतर.

किरण माळी आदी उपस्थित होते. विज्ञान प्रदर्शनासाठी प्रकल्प गट

- प्राथमिक (६वी ते ८वी) चे ४३, माध्यमिक (९ वी ते १२वी) चे ४१, निबंध प्राथमिकचे ३५, माध्यमिकचे ३५ वक्तृत्व प्राथमिकचे ३१, माध्यमिकचे ३६, प्रश्रमंजुषा २७, अपंग प्राथमिक २, माध्यमिक २, शिक्षक गट प्राथमिक २, माध्यमिक

२, प्र.परिचर १ अशा एकूण २५७ विदयार्थी व शिक्षकांनी सहभाग नोंदविला. संतोष भोसले यांनी सुत्रसंचालन

केले. प्रास्ताविक सुरेश सुतार यांनी केले तर विठ्रल माळशिकारे यांनी आभार मानले. राजेश गायकवाड. सरेश डॉ. माळी यांनी अभेच्छा दिल्या

News by PUDARI Newspaper dated 28th December 2023



मावळ तालुकास्तरीय विज्ञान प्रदर्शनात प्रकल्पाची पाहणी करताना गटशिक्षणाधिकारी सुदाम वाळूंज, राजेश गावकवाड, डॉ. सुरेश माळी, विट्ठल माळशिकारे,

मावळ तालुक्यात चिमुकल्याचे विविध प्रयोग, विज्ञान प्रदर्शनास प्रतिसाद

दोन दिवसीय प्रदर्शनाचे आयोजन : गटशिक्षणाधिकारी उपस्थित

लोकमत न्यूज नेटवर्क तळेगाव दाभाडे : जिल्हा परिषद, पंचायत समिती, मावळ तालुका विज्ञान मुख्याध्यापक संघ व अध्यापक संघ आणि डॉ. डी. वाय. पाटील महाविद्यालय (वराळे) यांच्या संयुक्त विद्यमाने आयोजित विज्ञान प्रदर्शनाचे प्रदर्शनाचे उद्घाटन गटशिक्षणाधिकारी सुदाम वाळूंज व

मुख्याध्यापक संघाचे उपाध्यक्ष राजेश माळी आदी उपस्थित होते गायकवाड यांच्या हस्ते झाले. प्राचार्य डॉ. सुरेश माळी, प्राचार्य प्रमोद पांडे, मुख्याध्यापक संघाचे तालुकाध्यक्ष विठ्ठल माळशिकारे, सचिव विकास तारे, विज्ञान अध्यापक संघाचे अध्यक्ष सुरेश सुतार, सचिव चंद्रकांत मुरुमकर, समन्वयक संतोष भोसले, प्रदर्शन समन्वयक किरण

निबंध, प्रकल्प, प्रश्नमंजुषा आदी गटांत हे प्रदर्शन झाले. दोन दिवसीय विज्ञान प्रदर्शनत इवी ते १२ तीपर्यंतच्या विद्यार्थ्यांनी सहभाग घेतला. प्राथमिक, माध्यमिक व उच्च माध्यमिक गटातू-एकूण २५७ विद्यार्थ्यांनी सहभा

News by Lokmat Newspaper dated 29th December 2023

Expert Session

From Industry to Academia

Industry Expert Session was conducted on "Business Intelligence and Its Different Real Time Application" by Department of AI-DS, in association with Data Science Club.

In this Session Speaker has introduced Business Intelligence (BI) in industrial settings involves leveraging technologies and practices to collect, analyze, and interpret data for informed decision-making. Its application in industries aims operational to enhance efficiency. optimize predict processes, maintenance needs, streamline supply chains, and enable data-driven decision-making.



Online Expert "Business session on Intelligence lts Different Real Time and Application" dated 16th December 2023 by Mr.Gaurav Thakare, Data Analytics, Decimal Point, Pune.

Session was Interactive and Students have enjoyed the session delivered by resource person Mr. Gaurav Thakare.

dvpcoei.edu.in

Accreditation Preparation:

What is Accreditation?

Accreditation is a quality assurance process that university or college or/and specific program undergo to confirm that they meet a set of services and operational standards to achieve quality of education.

In simple words, accreditation is a evaluation process that determines if an educational institute/program meets a defined standard of quality. While during this process, an institution or program undergoes an official appraisal process. Accreditation can be instructed by a government or can be voluntary. An accrediting body conducts the assessment and determines if an institution or program meets defined standards of quality. Since program syllabus and education standards are constantly being modernized, accreditation is not everlasting. Institutions must periodically reintroduce their accreditation status to ensure that the education quality is preserved.

There are two types of accreditations:

- 1. Institutional accreditation and
- 2. program accreditation

Institutional accreditation is an assurance that an institution as a whole meets a series of quality standards. During the process of institutional accreditation, the institutions are supposed to demonstrate that they are adhere to all good practices while giving quality education. For example, NAAC is doing institutional accreditation.

Departmental accreditation is an assurance that a particular program within the department as a whole meets a series of quality standards. During the process of departmental accreditation, the department is supposed to demonstrate that they are adhere to all good practices while giving quality education. For example, NBA is doing departmental accreditation.

Accredited programs and institutions undergo rigorous review before accreditation is granted and are evaluated regularly to ensure continued compliance with standards and policies that demonstrate the quality of the institutional or individual programs.

Why Accreditation?

Education plays a vital role in the development of any nation. Therefore, there is a premium on both quantity (increased access) and quality excellence (relevance and of academic programmes offered) of higher education. The NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC) has been set up to facilitate the volunteering institutions to assess their performance vis-a-

vis set parameters through introspection and a process that provides space for participation of the institution. The NAAC conducts assessment and accreditation of Higher Educational Institutions (HEI) such as colleges, universities or other recognized institutions to derive an understanding of the 'Quality Status' of the institution.

NAAC evaluates the institutions for its conformance to the standards of quality in terms of its performance related to the educational and processes outcomes. curriculum coverage, teaching-learning processes, faculty, research, infrastructure, learning resources, organisation, governance, financial wellbeing and student services

Benefits of Accreditation:

- Institution to know: strengths, weaknesses, & opportunities through review process
- Identification of internal areas of planning and resource allocation
- Collegiality on the campus
- Funding agencies look for objective data for performance funding
- Institutions to initiate innovative and modern methods of pedagogy
- New sense of direction and identity for institutions

- The society look for reliable information on quality education offered
- Employers look for reliable information on the quality of education offered
- Intra and inter-institutional interactions

NAAC preparation and SSR

In line with NAAC's principle that quality concerns are institutional, Quality Assessment (QA) can better be done through selfevaluation. The self-evaluation process and the subsequent preparation of the Self Study Report (SSR) to be submitted to NAAC involves the participation of all the stakeholders faculty _ management, members. administrative staff, students. parents, employers, community and alumni. While the participation of internal stakeholders i.e. management, staff and students provide credibility and ownership to the activity and could lead to newer initiatives, interaction with external stakeholders facilitate the the development process of the institution and their educational services. Overall, the QA is expected to serve as a catalyst for institutional self-improvement, promote innovation and strengthen the urge to excel.

The criteria-based assessment forms the backbone of accreditation process of NAAC. The seven criteria represent the core functions

and activities of a HEI. In the revised framework not only the academic and administrative aspects of institutional functioning but also the emerging issues have been included.

<mark>Criteria-based Self Study Report</mark> (SSR)

The seven Criteria to serve as basis for assessment of DYPCOEI by NAAC are:

- 1. Curricular Aspects
- 2. Teaching-Learning and Evaluation
- 3. Research, Innovations and Extension
- 4. Infrastructure and Learning Resources
- 5. Student Support and Progression
- 6. Governance, Leadership & Mgt.
- 7. Institutional Values and Best Practices

Under each Criterion a few Key Indicators are identified. These Key Indicators (KIs) are further described as Metrics which actually provoke responses from the DYPCOEI as shown in **Figure 1**.



Figure 1: Criteria, Key Indicators and Metrics

The SSR has two kinds of Metrics: one, those requiring quantifiable facts and figures as data which have been indicated as 'quantitative metrics' (QnM); those metrics and two, descriptive requiring responses and are accordingly named 'qualitative metrics' (QIM). Figure 2 depicts the distribution of Key Indicators (KIs) and Metrics across them.



Figure 2: The distribution of KIs and Metrics

Self-Study Report (SSR)- <u>LINK</u> <mark>Steps of NAAC Accreditation Process</mark>

- 1. NAAC website registration
- 2. Institutional Information for Quality Assessment (IIQA)
- 3. SSR submission on acceptance of IIQA
- 4. Data Validation & Verification (DVV) process and Pre-qualifier Score
- 5. Preparation for the Student Satisfaction Survey (SSS)
- 6. Onsite Peer Visit by NAAC
- 7. NAAC announces the Institutional Grading

NAAC Peer Team Visit @ DYPCOEI

DYPCOEI has undergone through all above the 7 steps and got accredited with "A" grade and Score of 3.1 in the scale of 4.0. Onsite Peer Visit by NAAC to the institute was on 18th and 19th December 2023. All the member of Onsite Peer Visit by NAAC were happy about the progress and presentation of the institute. Because of efforts take by all the faculty and staff, we got this success.



Students helping in setting up STP plat during NAAC Peer Team Visit on 19th Dec. 2023



Cultural Event: Performance by Devika during NAAC Peer Team Visit on 19th Dec. 2023

Institutional Presentation by Dr. Suresh Mal during NAAC Peer Team Visit



IQAC presentation by Mrs. Dipannita Mondal during NAAC Peer Team Visit

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Departmental presentation by Dr. Alpana Adsul during NAAC Peer Team Visit



Departmental presentation by Dr. Latika Desai during NAAC Peer Team Visit



Students presentation during NAAC Peer Team Visit



LAB Visits and presentations by the students during NAAC Visit



Library Visits and presentations by the students during NAAC Visit



NSS and NOVA Club presentations do showcase our Social Activities to the NAAC peer team members

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Parents Meeting: NAAC Peer Team Visit



Supporting Staff Meeting: NAAC Visit



Students Meeting: NAAC Peer Team Visit



STP Plant Demonstration : NAAC Visit



Teachers Meeting: NAAC Peer Team Visit



Electrical Engineering Lab : NAAC Visit



Department of Civil Engineering: NAAV Visit



Rain Water Harvesting: NAAC Visit



Examination Section: NAAC Visit



Class Rooms During NAAC Visit



IQAC Office presentations during NAAC Visit



Campus Ground Observations durring NAAC Visit

NAAC Result



Receiving a NAAC Peer Team Visit Report from NAAC Peer Team Chairman on 20th Dec. 2023



The institute has further plan of going for National Board of Accreditation (NBA) for the department of Computer Engineering and also planning to go for **ACADEMIC AUTONOMY**. Happy Christmas

Festival Celebration

It wasn't the usual morning sunrise at the DYPCOEI Varale campus on 23rd December 2023. While everybody was jogging up in their normal morning routine, we had a surprise visitor: Mr. Santa Clause! The Santa dashed into all the classrooms, catching the students by surprise. As if that were not enough, the organizing committee had come up with an outof-the-box idea: stuffing up Santa caps with chocolates and hanging the caps and balloons outside each room. The students were seen donning the Santa cap around the campus. To make the day even more special, the graffiti team decorated the whole campus with posters and standees with the Christmas theme. Evening cake-cutting. We ially like to extend our heartfelt thanks to our Management for support and guidance during this program. Gratitude to the Organizing committee. which spent sleepless nights planning and arranging this event and making it successful.



Christmas Celebration at DYPCOEI on 25th December 2023.



Quotes of the Month

"Darkness cannot drive out darkness: only light can do that. Hate cannot drive out hate: only love can do that."



— Martin Luther King

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