JNTUA monthly e-magazine

March 2024

TECH ANANTH

... infinite technology

Volume 3 Issue III

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National Science Day Celebrated @ JNTUA CEA

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Physics Nobel Laureate 1930.

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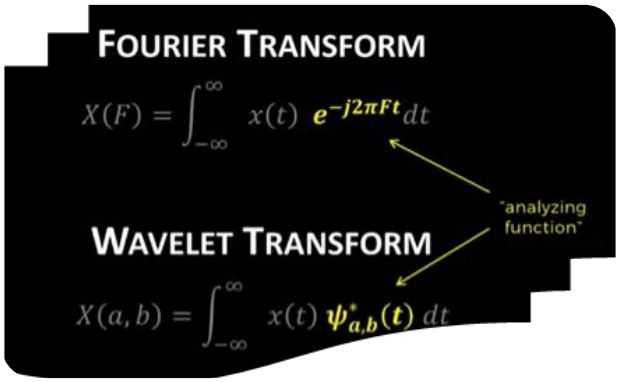
Diving Deep into Frequency Realms for Enhanced Pattern Discovery and Feature Extraction

- Dr E Keshava Reddy

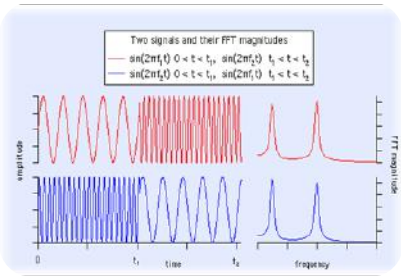
Wavelet Analysis, a potent mathematical tool, stands at the forefront of machine learning and data science. Breaking down data into distinct frequency components unveils intricate patterns and enhances feature extraction. Unlike conventional methods, Wavelet Analysis adapts to varying frequencies, making it invaluable for simultaneous analysis of high and low-frequency details. This adaptability proves essential in image recognition, signal denoising, and time-frequency analysis. In a data-driven era, Wavelet Analysis emerges as a pivotal asset, providing a nuanced understanding of complex signals and unlocking new dimensions in the pursuit of knowledge within machine learning and data science.



At its core, wavelet analysis involves breaking down a signal or dataset into different components, called wavelets, allowing for a more detailed and flexible analysis.

Imagine you have a piece of music. Traditional methods would look at the entire piece as a whole, but wavelet analysis works like a musical score, examining individual notes and how they change over time. This ability to focus on both high and low-frequency components simultaneously is what sets wavelet analysis apart.

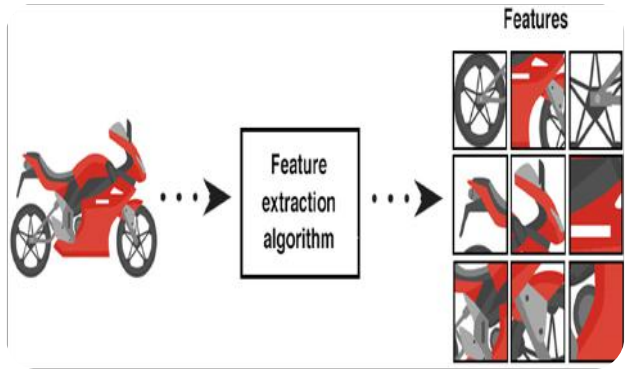
The term "wavelet" refers to a small wave-like oscillation. In wavelet analysis, these small waves are used to transform the original data. This transformation helps to identify and highlight patterns that may be hidden or difficult to discern using other methods.



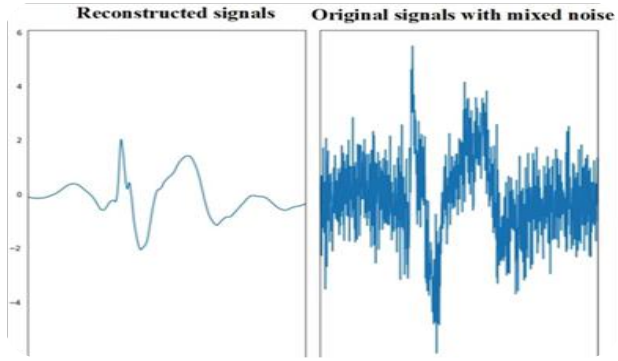
One key feature of wavelet analysis is its adaptability to different scales and positions. It can zoom in on specific details in the data, making it particularly useful for signals with varying frequencies. This adaptability is crucial in various applications, such as image processing, where images may contain both fine details and broader features.

The importance of Wavelet Analysis in different sections of Data Science like machine learning and Artificial intelligence can be understood with the below applications:

Feature Extraction: Wavelet transforms are effective in extracting relevant features from signals or data. In machine learning, feature extraction is critical for enhancing model performance. Wavelet-based features often highlight essential characteristics, contributing to more accurate and efficient learning.

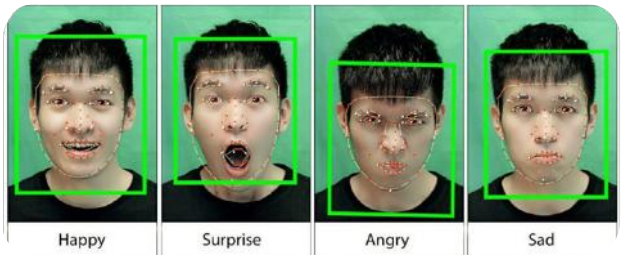


Signal Denoising: Real-world data is often contaminated with noise, which can hinder the performance of machine-learning algorithms. Wavelet analysis excels in denoising signals, separating useful information from unwanted interference. This is particularly valuable in tasks like speech recognition and biomedical signal processing.

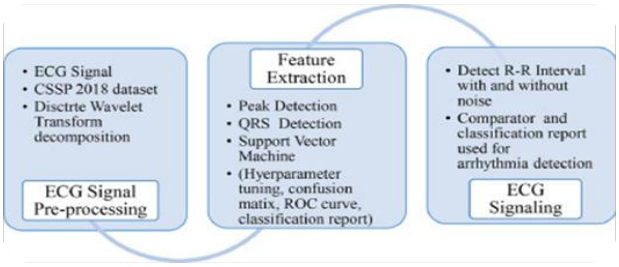


Time-Frequency Analysis: Many machine-learning applications require an understanding of how signals evolve over time. Wavelet analysis provides a time-frequency representation, allowing models to capture temporal variations. This is beneficial in fields such as financial forecasting and speech processing.

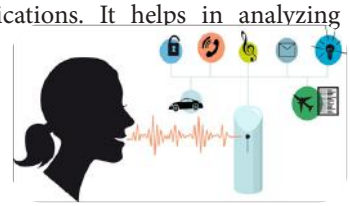
Image Processing: In computer vision, wavelet analysis is applied for image processing tasks such as compression, edge detection, and texture analysis. Wavelet-transformed features enable machine learning models to better understand and interpret visual information. It helps identify patterns, textures, and edges in images, contributing to improved accuracy in image classification.



Biomedical Signal Processing: In healthcare, wavelet analysis is applied to biomedical signals like electrocardiograms (ECGs) and electroencephalograms (EEGs). It aids in detecting anomalies and patterns in physiological signals, supporting medical diagnosis and research.



Speech Processing: Wavelet analysis is valuable in speech-processing applications. It helps in analyzing speech signals at various frequencies and time scales, contributing to tasks such as speech recognition and speaker identification.



Financial Time Series Analysis: Analyzing financial time series data requires a method that can capture both short-term and long-term trends. Wavelet analysis is employed to understand the time-frequency characteristics of financial data, aiding in forecasting and risk management.

Communication Systems: In telecommunications, wavelet analysis is used for signal modulation and demodulation. Its ability to efficiently represent signals at different scales makes it applicable for transmitting and receiving information in communication systems.

In conclusion, the importance of wavelet analysis in data science is undeniable, as it provides a versatile and powerful framework for unravelling intricate patterns within diverse datasets. Its adaptability to varying frequencies, multiresolution analysis, and feature extraction capabilities make it a valuable tool for enhancing the understanding and processing of complex data. From signal denoising to time-frequency analysis and applications in image processing and biomedical signal analysis, wavelet analysis stands at the forefront of methodologies employed in data science. As the field continues to evolve, the nuanced insights offered by wavelet analysis play a pivotal role in extracting meaningful information and driving advancements across various domains. Its significance lies in its ability to empower data scientists with a refined toolkit for uncovering hidden structures and optimizing the performance of machine learning models.

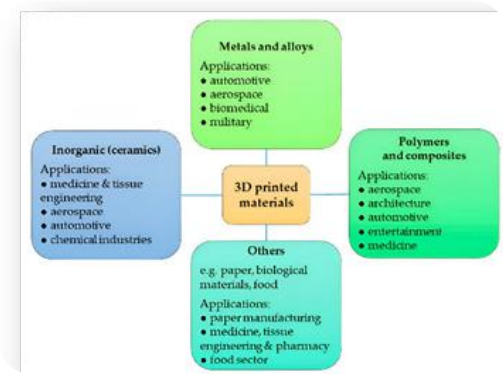
About the Author

Prof. E. Keshava Reddy is a Professor of Mathematics at JNTUA College of Engineering Anantapur and presently serving as the Director of Evaluation at JNT University Anantapur. He has written books on Mathematics which will not only improve the knowledge of engineering students and help students to improve their research capabilities in Mathematics. His Modular Object-Oriented Dynamic learning Environment (Moodle) site is http://keshava.moodlecloud.com or https://keshava.moodle.school, through which he teaches Mathematics to B.Tech. and M.Tech. students online. He is guiding young minds to achieve their research goals in the field of Mathematics.

Application of 3D Printing in Chemical Engineering

- N. Tiruvasagan

In the domain of Chemical Engineering, a powerful influence changing traditional methods and driving innovation is 3D printing. This technology, once confined to prototyping, has now become a cornerstone in the engineer's toolkit, offering numerous benefits from rapid prototyping to customized equipment manufacturing. The development of 3D printing technologies has opened up new possibilities for implementation in rapid prototyping, instrumentation, dentistry, microfluidics, biomedical devices, tissue engineering, drug delivery, and more. It enables the printing of custom-made reactors such as (micro) flow reactors. Using this technology, concepts are transformed into prototypes using computer-aided design (CAD) files, facilitating the production of digitally controlled, personalized products.

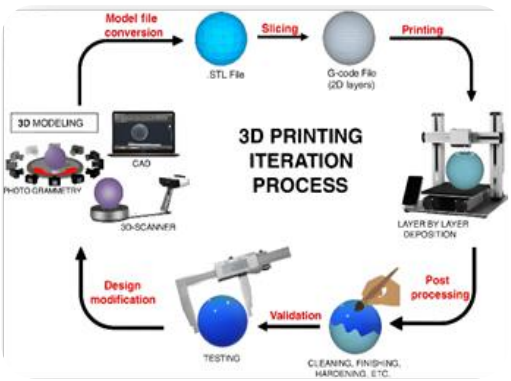


3D Printing Applications
Source: https://images.app.goo.gl/caSVgBAhjZ9d1SaP8

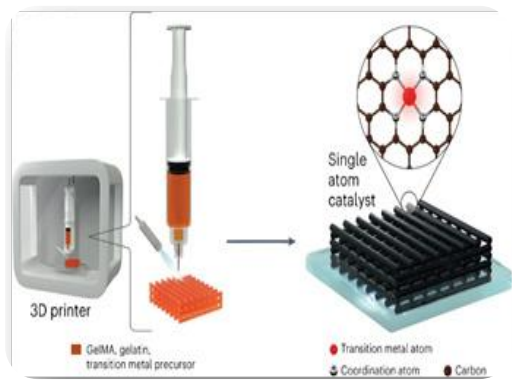
In this process, layers of materials such as living cells, wood, alloy, plastic, metal, etc., are stacked on top of each other to form the desired 3D object.

Chemical processes often need special equipment and parts made to fit exact needs.With 3D printing, engineers can create custom-made parts and assemblies precisely fitting the needs of a particular process or application. This customization not only enhances equipment performance but also reduces manufacturing lead times and costs associated with traditional machining processes. Traditional manufacturing methods often struggle with producing complex geometries and intricate structures. However, 3D printing excels in fabricating such designs with precision and repeatability.

In Chemical Engineering, this capability is invaluable for creating catalyst supports, heat exchangers, and reaction vessels with optimized geometries for enhanced performance and efficiency. Chemical plants and manufacturing facilities depend on a vast array of equipment, many of which are susceptible to wear and tear over time. 3D printing provides a solution to sourcing obsolete or hard-to-find spare parts by enabling on-demand manufacturing. Engineers can reproduce the required components onsite, minimizing downtime and ensuring continuous operation of critical processes. Researchers are exploring novel materials with unique properties, such as enhanced chemical resistance, thermal conductivity, or flexibility, to address specific challenges in chemical engineering applications. By leveraging 3D printing, these advanced materials can be precisely deposited layer by layer, opening up new possibilities for chemical process optimization and product development.



3D Printing Iteration Process
Source:https://images.app.goo.gl/sCzCQA5wRMjKUzk58



3D Printed Catalyst
Source: https://images.app.goo.gl/TsnSbXuj3vVkTn3x7

Some Applications of 3D printing in Chemical Engineering fields:

1. Customized Reactor Design: Customizedfor chemical reactors optimizing geometries.

2. Fabrication of Microreactors: Precision manufacturing of intricate internal structures.

Nuclear Reactor with 3D Printed Core
Source:https://images.app.goo.gl/kc7WeyMTe8MEhupz9

3.Catalyst Supports: Production of complex support structures enhancing catalyst performance.

4. Flow Control Devices: Creation of mixers, distributors, and separators improving fluid dynamics.

5. Heat Exchangers: 3D-printed designs offering improved thermal performance and compactness.

6. Reaction Vessels: Custom chambers for corrosive, high-pressure, or high-temperature reactions.

7.Membrane Separation Systems:3D printing can produce membranes with customized properties, such as pore size and surface chemistry, for enhanced separation efficiency.

8. Catalyst Development: Chemical engineers can use 3D printing to create complex catalyst structures with high surface area and specific geometries, leading to improved catalytic performance and selectivity in chemical reactions.

9. Sensor Integration: Real-time monitoring through integrated sensors for precise process control.

10. On-Demand Spare Parts: Production of replacement components, reducing downtime.

11. Material Development: Exploration of polymer and metal-based materials tailored for specific chemical applications, enhancing efficiency and sustainability.

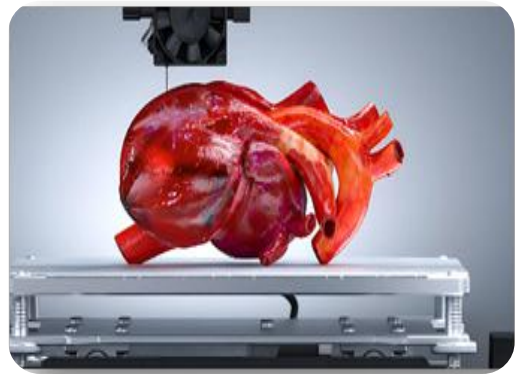
10. Prototyping and Scale-Up: Rapid iteration of designs for prototyping and seamless transition to large-scale production.

11. Sustainable Manufacturing: Localized production, waste reduction, and recycling initiatives contributing to eco-friendly practices in the chemical industry.

12. Customized Material Design: Customized material properties for specific applications, such as strength, flexibility, or conductivity.

13. Prototyping of Polymer Composites: Rapid iteration and testing of composite materials for desired mechanical and thermal properties.

14. Biomaterials and Tissue Engineering: Fabrication of scaffolds and implants for regenerative medicine applications.



3D Printed Human Heart
Source:https://images.app.goo.gl/UooeCcwbwcXogJGn6

15. Drug Delivery Systems: Printing personalized drug delivery devices with controlled release mechanisms.

16. Microfluidics: Creation of precise channels and chambers for microfluidic devices used in biomedical and analytical applications.

17. Additive Manufacturing Research: Advancing additive manufacturing techniques for polymers, including nozzle-based deposition and vat polymerization methods.

18. Nanomaterials Integration: Incorporating nanomaterials into polymer matrices to enhance mechanical, thermal, and electrical properties.

Overall, 3D printing is about to revolutionize chemical processes by offering customized, efficient, and flexible solutions for reactor design, equipment fabrication, and process control. As the technology continues to advance, its applications in chemical engineering are expected to expand, driving further advancements in process efficiency, sustainability, and innovation.

About the Author

Mr. N. Tiruvasagan is currently in the final year of his Bachelor of Technology program at the Department of Chemical Engineering, JNTUA College of Engineering Ananthapuramu. He has a keen interest in pursuing a Master's Degree and eventually a Ph.D., to investigate deeper into advanced research opportunities. His long-term aspiration is to contribute to projects and initiatives that prioritize environmentally friendly practices within the realm of Chemical Engineering.

National Science Day (NSD) 2024

Theme: 'Indigenous Technologies for Viksit Bharat'.

28th February is celebrated as National Science Day (NSD) in India. NSD is celebrated to commemorate discovery of the 'Raman Effect', which led to Sir C.V. Raman winning the Noble Prize.

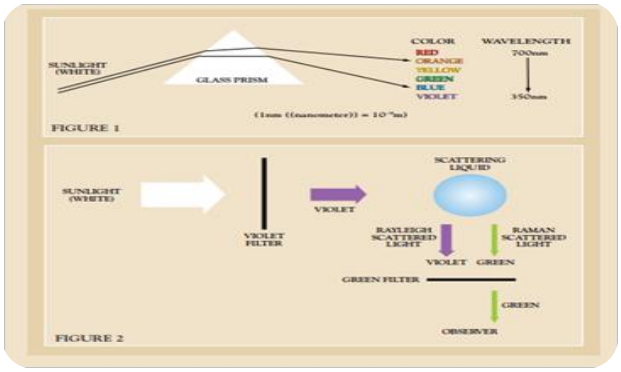
When was the day declared as National Science Day?

In 1986, the National Council for Science and Technology Communication (NCSTC) asked the Government of India to designate 28 February as National Science Day which the then Govt. of India accepted and declared the day as National Science Day in 1986. The first National Science Day was celebrated on February 28, 1987.

What is Raman Effect?

Raman Effect is a phenomenon in spectroscopy discovered by the eminent physicist Sir Chandrasekhara Venkata Raman in 1928. After two years in 1930, he got Nobel Prize for this remarkable discovery and this was the first Nobel Prize for India in the field of Science. while working in the laboratory of the Indian Association for the Cultivation of Science, Kolkata.

Raman Effect is a change in the wavelength of light that occurs when a light beam is deflected by molecules. When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than that of the incident (incoming) beam. Most of this scattered light is of unchanged wavelength. A small part, however, has wavelengths different from that of the incident light; its presence is a result of the Raman Effect.



Raman Effect as the Physicist's Tool

The significance of the Raman Effect was recognized quickly by other scientists. Professor R. W. Wood of Johns Hopkins cabled Nature to report that he had verified Raman's "brilliant and surprising discovery ... in every particular. It appears to me that this very beautiful discovery which resulted from Raman's long and patient study of the phenomenon of light scattering is one of the most convincing proofs of the quantum theory."

Raman had also recognized that his discovery was important to the debate in physics over the new quantum theory, because an explanation of the new radiation required the use of photons and their change in energy as they interacted with the atoms in a particular molecule. Raman also knew that there was a more important result, remarking in his 1930 Nobel Prize address that "... the character of the scattered radiations enables us to obtain an insight into the ultimate structure of the scattering substance."

In the first seven years after its discovery, the Raman Effect was the subject of more than 700 papers in the scientific literature, mostly by physicists who were using the technique to study the vibration and rotation of molecules and relating those phenomena to the molecular structure. Then, as noted by Raman biographer G. Venkataraman, there was a decline in interest, as "the first bloom of novelty had worn off and physicists were satisfied that they understood the origin of the effect." At the same time, chemists became interested in the Raman Effect as an analytical tool. In James Hibben's words, "The Raman Effect became the adopted child of chemistry."

Raman Effect as a Chemist's Tool

By the late 1930s the Raman Effect had become the principal method of nondestructive chemical analysis for both organic and inorganic compounds. The unique spectrum of Raman scattered light for any particular substance served as a "fingerprint" that could be used for qualitative analysis, even in a mixture of materials. Further, the intensity of the spectral lines was related to the amount of the substance. Raman spectroscopy could be applied not only to liquids but also to gases and

solids. And unlike many other analytical methods, it could be applied easily to the analysis of aqueous solutions. It was a ubiquitous technique, giving information on what and how much was present in a plethora of samples.

The use of Raman spectroscopy as a basic analytical tool changed sharply after World War II. During the war, infrared spectroscopy was enhanced by the development of sensitive detectors and advances in electronics. Infrared measurements quickly became routine operations, while Raman measurements still required skilled operators and darkroom facilities.

Raman spectroscopy could no longer compete with infrared until another development in physics — the laser — revived Raman spectroscopy in a new form beginning in the 1960s.

Although Raman's original experiments were done by visual observation, precise measurements were made with this quartz spectrograph and first made public by Raman in a lecture in Bangalore on March 16, 1928. (Courtesy the Indian Association for the Cultivation of Science.)

The Laser and Raman Spectroscopy

Raman understood the need for more intense light sources to amplify the effect and observation of the scattered light. The laser provided an even more intense source of light that not only could serve as a probe exploring the properties of the molecule but could also induce dramatically new effects.

With the development of the Fourier transform (FT) technique and the application of computers for data handling, commercial FT-Raman spectrometers became available in the late 1980s, resulting in resurgence in the use of the original Raman Effect.

The new Raman spectroscopy has been used to monitor manufacturing processes in the petrochemical and pharmaceutical industries. Illegal drugs captured at a crime scene can be analyzed rapidly without breaking the evidence seal on the plastic bag. Chemists can watch paint dry and understand what reactions are occurring as the paint hardens. Using a fiber-optic probe, they can analyze nuclear waste material from a safe distance. Photochemists and photobiologists are using laser Raman techniques to record the spectra of transient chemical species with lifetimes as small as 10-11 seconds. Surface-enhanced Raman spectroscopy is used for studying surfaces and reactions on surfaces. And, according to Kathy Kincade, Raman spectroscopy "has the ability to provide specific biochemical information that may foreshadow the onset of cancer and other life-threatening illnesses."

In his 1928 talk in Bangalore, Raman concluded, "We are obviously only at the fringe of a fascinating new region of experimental research which promises to throw light on diverse problems relating to radiation and wave theory, X-ray optics, atomic and molecular spectra, fluorescence and scattering, thermodynamics, and chemistry. It all remains to be worked out."

Seventy years later scientists are still actively working out the results and practical applications of Raman's deceptively simple experiment.

Biography of Sir C.V. Raman

(07 November 1888 - 21 November 1970)

He received a B.A. degree from Presidency College in Madras at the age of 16, placing first in his class and receiving a gold medal in physics. While studying for his M.A. degree, he published his first research paper in Philosophical Magazine at the age of 18. It was the first research paper ever published from Presidency College. Because of poor health, he was unable to go to England for further education. With nothing else available in India, in 1907 he passed the Financial Civil Service exam, married, and was posted to Calcutta as assistant accountant general. Shortly after arriving in Calcutta, Raman began after-hours research at the Indian Association for the Cultivation of Science (IACS). In the first 10 years, working almost alone, he published 27 research papers and led the way for the IACS to become recognized as a vibrant research institute. Much of this early work was on the theory of vibrations as it related to musical instruments. After brief postings in Rangoon and Nagpur, he returned to Calcutta, took up residence next door to the IACS, and constructed a door that led directly into the institute, giving him access at any time. He received research prizes in 1912 and 1913 while he was still a full-time civil servant. He also increased the IACS reputation with his extensive lectures in popular science, holding the audience spellbound with his booming voice, lively demonstrations, superb diction and rich humor. At the age of 29 he resigned from his lucrative civil service job when Sir Ashutosh Mukherjee, vice-chancellor, Calcutta University, offered him the Palit Chair Professorship. He continued to lecture even though it was not required, and he used the IACS as the research arm of the university. By the time of his first visit to England in 1921, his reputation in physics was well known. Three years later he was elected a Fellow of the Royal Society — only the

fourth Indian so honored. That same year he toured the United States, spending four months at the California Institute of Technology through the invitation of Nobel Laureate Robert Millikan. After discovering the Raman Effect in 1928, he was knighted by the British government in India and received the Nobel Prize in physics in 1930. Three years later, Raman left Calcutta for Bangalore, where he served as head of the Indian Institute of Science. There he continued his work on the Raman Effect and became interested in the structure of crystals, especially diamond. In 1934 he founded the Indian Academy of Science and began the publication of its Proceedings. In 1948 he became director of the newly constructed Raman Research Institute, where he remained continually active, delivering his last lecture just two weeks before his death. His research interests changed in later years when he primarily investigated the perception of color. Jagdish Mehra, a biographer, states, "Educated entirely in India, Raman did outstanding work at a time when the small Indian community worked almost entirely in isolation and few made science a career. In fostering Indian science, Raman emerged as one of the heroes of the Indian political and cultural renaissance, along with ... Mahatma Gandhi and Jawaharlal Nehru." But as Raman himself once said, outstanding investigators "are claimed as nationals by one or another of many different countries. Yet in the truest sense they belong to the whole world."

NSD 2024

The theme for the "National Science Day 2024", is titled "Indigenous Technologies for Viksit Bharat". The NSD Theme for this year's celebration reflects a strategic focus on promoting public appreciation for Science, Technology and Innovation and accomplishments of Indian scientists to address challenges through homegrown technologies for over-all well-being.The Theme not only marks a new era but also presents an opportunity for public and scientific fraternity, both domestically and internationally, to collaborate, work together, and contribute to the well-being of India and humanity as a whole. While emphasizing the importance of making India Atmanirbhar through science, it underscores the need to address subjects that hold significance for humanity as a whole.National Council for Science & Technology Communication (NCSTC) of Department of Science & Technology (DST) is nodal agency to support catalyze and coordinate celebration of the NSD throughout the country, particularly in scientific institutions & research laboratories.

NCSTC has supported various programmes countrywide by supporting its State S&T Councils & Departments for organization of lectures, quizzes, open houses, etc.

Citations

1. American Chemical Society International Historic Chemical Landmarks. The Raman Effect. http://www.acs.org/content/acs/en/education/whatischemistry/landmarks/ramaneffect.html (accessed March 14, 2023).

2. https://vikaspedia.in/education/childrens-corner/important-days/national-science-day.

Oil Painting 'Seascape' by Ms. Neha Mallika, Alumnus Department of Chemical Engineering, JNTUA CE Ananthapuramu.

NAAC Expert Team Members Prof.T.Thyagarajan, Emeritus Professor of Anna University, Chennai & NAAC Assessor, Prof. M.G. Sethu Raman, Dean, School of Sciences, Gandhigram Rural Institute and Prof. S. Muthan Professor of Eminence Anna University perform Mock Audit

Organized by

Internal Quality Assurance Cell (IQAC), JNT University Anantapur.

Date: 02-02-2024

Prof.T.Thyagarajan, Emeritus Professor of Anna University, Chennai & NAAC Assessor, Prof. M.G. Sethu Raman, Dean, School of Sciences, Gandhigram Rural Institute and Prof. S. Muthan Professor of Eminence Anna University visited JNTU Anantapur on 2nd February 2024 as members of peer committee for mock NAAC assessment. Prof. M. Vijaya Kumar the rector of the University presented the details of the University. On this occasion, Rector explained the details of various criteria in the presentation. especially Syllabus Design, Community Service Project, Internship, Outcome Based Education (OBE), Open Electives, MOOCS Courses, Professional Electives, Student Faculty Ratio, Pass Percentage, Research, Research Papers, Patents, Awards, Research Grants, Teaching Methods. Rector explained the details like tools used for education, placements, higher education, NIRF ranking, and NBA. After that, the NAAC team visited the library, Central Computer Centre, Chemical Engineering, Civil Engineering, Mechanical Engineering Department, Humanities and Social Science Department, ECE Department, Science Block, examination branch and gave various suggestions and advice. Later, projects, models and cultural programs were seen by the visiting members. IQAC Director Prof. G.V. Subba Reddy, University Directors Prof. V. Sumalatha, Prof. E. Kesava Reddy, Prof. Kiranmayi, Prof. C. Shoba Bindu, Prof. R. Padma Suvarna, Prof. A. Suresh Babu, Prof. B. Eswar Reddy, Prof. N. Visali, Prof. P. Sujatha, Prof. V. B. Chitra, Principal Prof. S.V. Satyanarayana, Vice Principal Prof. E. Arunakanthi, HODs of Colleges, Dr. K. F. Bharathi, Dr. M. Ramasekhara Reddy, Dr. K. Kalyani Radha, Dr. B. Dilip Kumar, Dr. G. Mamatha and Smt. B. Ajitha, teaching staff, University Coordinators, Ad hoc staff and non-teaching staff were present

Dr. P.R. Bhanumurthy Professor of Civil Engineering, JNTU Anantapur assumes charge as Convenor of APECET 2024

Date: 05-02-2024

Dr.P.R. Bhanumurthy Professor of Civil Engineering, JNTUA CE Ananthapuramu assumed charge as APECET 2024 convenor on 05.02.2024 (Monday) at JNT University Anantapur. Speaking on the occasion Prof. P.R. Bhanumurthy thanked AP State Council of Higher Education, JNTUA Vice-Chancellor Prof. G.V.R. Srinivasa Rao, Rector Prof. M. Vijaya Kumar and Registrar Prof. C. Sashidhar for trusting him and appointing him as Convener of APECET 2024. He said that he will carry out this responsibility properly. On this occasion Rector Prof. M. Vijaya Kumar, Registrar Prof. C. Sashidhar, University Directors Prof. C. Shoba Bindu, Prof. B. Durga Prasad, College Principal Prof. S.V. Satyanarayana, University PRO Dr. M. Ramasekhara Reddy, Prof. B. Dilip Kumar, Deputy Registrar Sri Madhusudhana Reddy, teaching, non-teaching and outsourcing staff presented flower bouquets and felicitated him.

Plantation Program @ JNTUA CEA Hostels

Date: 15-02-2024

Plantation program was undertaken near Hampi & Amavarathi Hostels at JNTUA College of Engineering Ananthapuramu on 15.02.2024. Around 20 saplings of *Cocos nucifera* (Coconut) were planted. Speaking on the occasion Vice-Chancellor Prof. G.V.S. Srinivasa Rao said that as many trees as possible should be planted and the greenery should be enhanced. He said that besides planting trees, efforts should be made to monitor them carefully. On this occasion every student is advised to plant a plant and look after its conservation. Registrar Prof. C. Sashidhar, College Principal Prof. S.V. Satyanarayana, Vice Principal Prof. E. Arunakanthi, Officer in Charge of Hostels Prof. T. Balanarasaiah, Prof. K. Madhavi, Dr. M. Ramasekhara Reddy, Dr. B. Dilip Kumar, Sports Council Secretary Mr. Joji Reddy, Mr. Sunil PA to Vice Chancellor, Mr. Shivshankar Goud, students and hostel staff participated.

Senior Joji Reddy, Secretary Sports Council, JNTUA Wins Doubles in National Level Championship @ Hyderabad.

Date: 9 - 11 February, 2024

Sri. B. Joji Reddy, Secretary Sports Council of JNTUA Won Doubles championship in 60+ age group partnering with Paul Manohar of Guntur organized by Hyderabad Open Tennis Association (HOTA) National Tennis Tournament at Jubilee Hills International Club at Hyderabad from 9 - 11 February , 2024.

Justice S. Praveena District Judge, Hyderabad is the new Ombudsperson of JNT University Anantapur.

Date: 13-02-2024

Justice S. Praveena District Judge, Hyderabad is appointed as Ombudsperson of JNT University Anantapur. She took charge on 13-02-2024 at JNTUA Ananthapuramu. Vice Chancellor Prof. G.V.R. Srinivasa Rao and Registrar Prof. C. Sashidhar presented flower bouquet and congratulated her on the occassion.

Internet of Things (IOT) HACKATHON

Three Day Workshop Organized by
Department of Electronics & Communication Engineering
JNTUA College of Engineering (Autonomous) Ananthapuramu

- A Report by Dr. G. Mamatha, Coordinator

16.02.2024 to 18.02.2024

Introduction

The 3-day IoT Hackathon Workshop with Make Skill innovation Centre is aimed to provide participants with practical experience and in-depth knowledge of IoT technologies through hands-on learning. By engaging in team-based projects and interactive sessions, participants were encouraged to explore IoT concepts and develop innovative solutions to real-world problems.

Inaugural ceremony

The inaugural ceremony marked the commencement of the workshop, bringing together participants, organizer Prof. D. Vishnu Vardhan, Convener Dr. G. Mamatha head of the ECE department, Resource persons Giridhar and their team with 3 members from Make Skill Innovation and esteemed chief guests Prof. G. V. R. Srinivasa Rao Vice-Chancellor of JNTUA & Prof.S. V. Satyanarayana Principal of JNTUACEA. Speakers emphasized the importance of IoT in driving technological innovation and its potential to transform various industries. The ceremony served as a platform to inspire participants and set the stage for the subsequent hands-on sessions.

The main objectives of these workshop are To equip participants with practical skills in IoT development. To foster collaboration and creativity among participants. To empower participants to address real-world challenges using IoT technology.

Day 1

Morning Session

Participants were introduced to a variety of IoT hardware platforms and guided through the process of selecting and setting up hardware components for their projects. Emphasis was placed on understanding the capabilities and limitations of different hardware options .

Afternoon Session

Sensor Integration concepts are covered by the resource persons in this session the students learned how to integrate sensors into their IoT devices and collect data for analysis. Practical exercises allowed participants to gain firsthand experience in sensor selection, calibration, and data acquisition.

Day 2

Morning Session

The workshop covered techniques for processing and analyzing IoT data, including data preprocessing, visualization, and interpretation. Participants were introduced to data analytics tools and frameworks commonly used in IoT applications.

Afternoon Session

Students were started a working on their innovated projects introduced to IoT application development frameworks and guided through Make Skill resource persons.

Day 3

The students are actively participated in Hackthon program Students were introduced to IoT application development frameworks and guided through the process of building user interfaces and integrating IoT devices into software applications. Hands-on exercises enabled participants to develop functional prototypes of their projects.

Validictory Session

The validictory session provided participants with an opportunity to showcase their projects to a panel of judges and their peers. Each team presented their project, highlighting the problem statement, solution approach, and technological innovations employed.Judges Prof. P.Ramana Reddy & Prof.M. N. Giri Prasad senior professors in ECE department at JNTUACEA are provided constructive feedback and evaluated projects based on creativity, technical proficiency, and real-world applicability. Students and faculties from polytechnic college of Ananthapuram visited the IoT Hackthon projects.

Merit certificates sponsored by Make Skill Innovation were presented to the top four team students by Prof. E. Arunakanthi, Vice Principal JNTUA CEA. Mementos were presented to Make Skill Innovation Team.

NAAC Peer Team Visits JNT University Anantapur

Date: 22-02-2024 to 24-02-2024

NAAC Peer Committee visited various departments of the University and College for three days from 22.02.2024 to 24.02.2024 at JNTU Anantapur University. Prof. Satish Pal Singh Rajput of Maulana Azad National Institute of Technology, Bhopal is the Member Coordinator for the committee. Prof. N.S. Raghava of Delhi Technological University, Delhi, Prof. Virginia Paul of Samhigginbottom University of Agriculture Technology and Sciences, Prayagraj, Prof. Jayanthi Bala Sundaram of Periyar Maniammai Institute of Science & Technology, Thanjavur and Dr. Manjunatha of New Horizon College of Engineering, Bangalore are the members of the NAAC peer committee. Vice-chancellor Prof. G.V.R. Srinivasa Rao presented the details of the university to the NAAC team in the conference hall especially the syllabus design, community service project, internship, outcome based education (OBE), open electives, MOOCS courses, professional electives, student faculty ratio, pass percentage, research, research papers, patents, details such as awards, research grants, teaching methods, tools used for teaching, placements, higher education, NIRF ranking, NBA accreditation. APSCHE Chairman Prof. K. Hema Chandra Reddy, Rector Prof. M. Vijaya Kumar and Registrar Prof. C. Shasidhar were present in the meeting. NAAC team visited the library, Common Computer Center (CCC), all engineering departments, Humanities Department, MBA department, Science Block, Examination Branch, Sports Department, and Hostel Office on the first day. On the second day the NAAC team held meetings and interacted with the Directors, teaching staff, non-teaching staff, and students. The committee members visited various stalls displaying the achievements of the students especially in NSS, NCC, projects, working models. Later in the evening the committee members attended the cultural program by the students of JNTUA College of Engineering Ananthapuramu. On the final day exit meeting was conducted by the NAAC Committee attended by the University leadership.

JNTU Anantapur Students Spellbind the NAAC Peer Team with Excellent Performances in Cultural Program

Date: 22-02-2024, Venue: NTR Auditorium, JNTUA

As part of the NAAC Peer visit during 22-24 February, 2024 on the JNTUA campus, the university organized the cultural programme on 22-02-2024 to exhibit the extra-curricular activities of the students. Students from JNTUACEA, JNTUACEK, JNTUA SMS, & JNTUA OTPRI have actively participated in the events like classical music, classical dance, semi-classical dance, folk, yoga and mime. Our students excelled not only in singing and dancing performances but also in yoga and mime. Their performances spellbound all the audience and were well appreciated by the NAAC Peer Team Experts. Dr.V.B.Chithra, Professor & Director, Women Empowerment, JNTUA acted as the Convenor of this programme.

About the Convenor

Professor of English & Head
Department of Humanities
JNTUA College of Engineering
ANANTAPUR - 515 002
Andhra Pradesh, India.

Invited Talk

Vegetable Oil Processing & Value Added Industrial Products (Paints)

Organized by

Department of Chemical Engineering, JNTUA CEA

in association with

Institution of Engineers India (IEI), Anantapuramu Local Centre (ALC)

Venue: Seminar Hall of Chemical Engineering Department

Date: 24-02-2024

Vegetable oils, or vegetable fats, are oils extracted from seeds or from other parts of fruits. Like animal fats, vegetable fats are mixtures of triglycerides. Soybean oil, grape seed oil, and cocoa butter are examples of seed oils, or fats from seeds. Olive oil, palm oil, and rice bran oil are examples of fats from other parts of fruits. In common usage, vegetable oil may refer exclusively to vegetable fats which are liquid at room temperature. Vegetable oils are usually edible.The health effects of vegetable oil consumption have been the subject of numerous studies. A systematic review in 2015 found that consumption of virgin olive oil significantly reduced cardiovascular disease. Consumption of fried food in general was not associated with higher cardiovascular disease but it was associated with obesity.

He briefly narrated the overview of vegetable oil processing and its importance in various industries. Introduced various value-added industrial products and their significance. Finally he concluded with insights in exploring the potential integration of vegetable oil processing with the production of value-added products such as paints. He highlighted vegetable Oil Processing and Extraction Methods. The Overview of mechanical and solvent extraction methods for obtaining vegetable oils. - Discussion on the advantages and disadvantages of each method. Later, he discussed about Refining Process - Explanation of refining steps including degumming, neutralization, bleaching, and deodorization. Analysis of refining technologies and their impact on oil quality. Finally, Fractionation and Modification - Overview of fractionation techniques to obtain specific oil fractions with desired properties were discussed.

About the Speaker

Prof. P. VENKATESHWAR did his B.Tech. in Chemical Engg. in the year 1984 from L I T, Nagpur University and joined BIRLA Cement, SATNA (M.P), which is the First Computerized Cement plant in ASIA. Later he did his M. Tech (Oil Technology) from L I T, Nagpur University and Ph..D from Dr. Baba Saheb Ambedkar Technological University. He has 35 years of total experience, out of which 11 years as Principal of R K college of engineering., Vijayawada and Vijaya Institute of Technology for Women., Vijayawada. He was also Head of BIO Tech dept in KLCE(KLU, Vaddeswaram, Guntur dt.). He was professional member for different professional bodies such as Fellow of The Institution of Engineers (INDIA). [FIE], Life Member of The Indian Institute of Chemical Engineers (IIChE), Life Member of ISTE, AND Member of Association of Biotechnology and Pharmacy.

NATIONAL SCIENCE DAY 2024 CELEBRATIONS

Theme : Indigenous Technologies for Viksit Bharat

Organised by

Department of Basic Sciences and Humanities, JNTUA CEA Ananthapuramu

Venue: JNTUA CEA Auditorium

Contributed by Prof. R. Padma Suvarna , Coordinator

Date: 28-02-2024

Department of Basic Sciences and Humanities, celebrated 'National Science Day on 28th February, 2024 to commemorate the invention of "Raman Effect" by one of the renowned Physicist of India. This event highlighted the aims and objectives of the current theme Indigenous technologies for Viksit Bharat" The day was celebrated with great enthusiasm.

The event commenced with the ceremonial lighting of the lamp by all the dignitaries, paying homage to Sir C.V.Raman followed by an inaugural song on Sir.C.V.Raman that set the tone for the day's proceedings. Coordinator of the event, Prof.R. Padma Suvarna commenced the program with opening remarks, setting a welcoming and inclusive atmosphere for all attendees.

Prof. S.V.Satyanarayana, Principal of JNTUA College of Engineering initiated the proceedings with an enlightening address, which was followed by an insightful speech on "Science for Technology" by the Chief Guest Prof. R.Ramakrishna Reddy from Sri Krishnadevaraya University, Anantapur. Hecaptivated the audience with a presentation on the remarkable achievements of Indian scientists in utilizing and advancing modern technology. He also spoke on Raman effect and its Applications.He emphasized the need to go beyond textbooks and imbibe the knowledge from all the spheres for the overall development. He encouraged and motivated students to take up challenges and put efforts to achieve excellence in their domains.

The Inaugural function was attended by Prof.S.V.Satyanarayana, Principal of JNTUA College of Engineering, Prof.E. ArunaKanti, Vice-Principal, Prof.R. Bhuvana Vijaya, HoD of Basic Sciences dept., Prof.R. Padma Suvarna, Coordinator of Science Day Celebrations, Faculty of Sciences and Humanities..The event saw active participation and engagement from students

The celebration of National Science Day served as a platform for inspiring young minds, fostering a passion for science, and highlighting the importance of scientific advancements in addressing societal challenges.

KSRM College of Engineering KADAPA - 516 005.

◆ Events Organized during the Month of February – 2024.

- On the Occasion of National Science Day, Dept of H&S organized a Quiz Competition & Poster Presentation for I. B. Tech Students. On this occasion Sri. Kompella S Sastry, National Governing Council Member of Vijnan Bharati attended as the Chief Guest. Dr. V.S.S. Murthy, Principal; attended the programme and encouraged the students who presented posters on this occasion. The chief guest and the Principal presented Mementos & Certificates to the Winners, Runners & Participants. Prof. I. Sreevani, HOD, H&S acted as the convener. Dr. V. Adinarayana Reddy, Dean Academics, Dr. D. Mallikarjuna Reddy Asst. Prof, Smt. M. Mary Jasmine, Asst. Prof acted as the coordinators.

- NSS Unit conducted seven days of "SPECIAL CAMP" Day 4 at adopted village, Kopparthy in the vicinity of college. The volunteers went to "Kopparthy" Village and interacted with Blood Donation and Blood Grouping in association with STEP Kadapa. Students were very happy and volunteers of NSS felt very happy too. Managing Director Dr.K.Chandra Obul Reddy sir correspondent Smt. K.Rajeswari madam and Principal Prof.V.S.S. Murthy sir appreciated the volunteers for conducting Special camp Program officer J.Suresh Babu took part.

- The Department of H&S, KSRMCE (Autonomous), Kadapa, organized a "National Periodic Table Day" on 7th February, 2024 at 1:00 in CE 305-Seminar Hall. The aim of the programme is to create awareness and importance of the periodic table in daily life. Prof. G. Hemalatha, HoD and in-charge Principal attended the event as the chief guest. Dr. I. Sreevani, HoD, H&S Dept. acted as the convener for this event. Dr. K. Venkata Ramana, Associate Professor, organized this programme as the coordinator. All teaching staff and students of I B. Tech participated in the event.

- The Department of EEE organized an industrial visit to Hetero Wind Power Pennar Pvt Ltd, Jammalamadugu on 12/02/2024, in connection with the celebration of "Be Electrific Day". All students learned new concepts during the visit.

- World Radio Day is an international day celebrated on 13th February each year. The theme for World Radio Day 2024 is "Radio: A century informing, entertaining and educating" The Department of ECE and IEEESB Organized a Quiz Competition on the occasion of World Radio day celebrations on 13-02-2024.

- The Department of Mechanical Engineering organized a guest lecture Role of Engineering in Industry 4.0 and Smart Manufacturing Industries on 17th Feb 2024. Sri. T. Narendra Reddy, Scientist –D CentralManufacturing Technology Institute, Bangalore attended as the resource person. Dr. D. Ravi Kanth, Professor and HoD, Mechanical Engineering Dept. acted as the convener for this event. Sri.A. Harikrishna, Asst.Professor, MED, organized this programme as the coordinator.

- The Department of Mechanical Engineering organized a guest lecture on "Artificial Intelligence And Automation In Mechanical Engineering Projects" on 20-02-2024. Dr. N. Chandra Sekhar, Founder and C.E.O of Siyanda Technologies Pvt. Ltd, Hyderabad, KSRMCE ALUMNI (1993-97) attended as the resource person. Dr. D. Ravi Kanth, Professor and HoD, Mechanical Engineering Dept. acted as the convener for this event. Sri. P. Sivaseshu, Asst.Professor, MED, organized this programme as the coordinator.

- KSRMCE -IIC conducted "Poster Presentation/ Prototype Project Exhibition" on 21-02-2024.

- Web-a-thon 2.0 - The Department of AIML in association with AIMER(Artificial Intelligence Medical Engineering Research)Society organized Web-a-thon 2.0 from 21 to 23 Feb 2024. Dr. V.S.S. Murthy, Principal, graced the event as the chief guest. Prof. K. Sreenivasa Rao, HoD, AI&ML acted as the Convener for this event. Mr. J. Sunil, Asst. Professor organized this event as the coordinator.

- KSNR Sports Arena Indoor Stadium which is India's 2nd Highest Indoor Stadium was inaugurated by our beloved Managing Director Dr. Kandula Chandra Obul Reddy, Kandula Group ofInstitutions; on 22nd February, 2024. Sri. K. Raja Mohan Reddy, Chairman; Smt. K. Rajeswari, Correspondent; Sri.K. Madan Mohan Reddy, Vice- Chairman; Principal Dr. V.S.S. Murthy; Well-wishers and Dignitaries, All the Head of the Departments, Deans, Teaching and Non-Teaching staff and students in large number attended the programme and made it a grand success.

Faculty Achievements

1. Dr. M.S. Priyadarshini, Professor and HoD of E.E.E. Department has published a paper entitled "Perception of Power Quality Disturbances using Fourier, Short-time Fourier, Continuous and Discrete Wavelet Transforms" in SCIE indexed Scientific Reports Journal, Volume14, Article Number 3443, February 2024.

2. Dr. Ganta Sreedhar, Assistant Professor has participated in an online Faculty Development Program "Viksit Bharat 2047- Role of Engineering Faculty"

from 29-01-2024 to 02-02-2024 organized by Rajiv Gandhi University of Knowledge Technologies, IIIT RK Valley, Kadapa and Anantha Lakshmi Institute of Technology & Sciences, Ananthapuramu.

3. Smt. M. Mary Jasmine, Asst. Professor, Dept. of Humanities and Sciences, has Published a textbook entitled "An Introductory Approach on Research Methodology" Infinity publications in January 31st, 2024.

4. Sri. M.Bhaskara Reddy, Associate Professor, E.E.E Department, has attended and completed a five-day Faculty Development Programme Emerging Trends and Challenges in Renewable Energy Systemsorganized by GATES Institute of Technology, Gooty from 5th to 9th February 2024.

5. Sri P Rajendra Kumar, Asst. Professor, Dept. of CE has acted as a reviewer to the International Conference on Transformations in Engineering Education 2024, held at KLE Technological University, Hubbali from Jan 2-4, 2024.

6. Mrs. B. Manorama Devi, Assistant Professor, Department of CSE, KSRMCE, has successfully completed one week FDP on "Applied Cloud Computing for Full Stack Web Development", organized by AICTE (Edunet foundation), dated 5th February 2024 to 9th February 2024.

7. Sri K Hemanth Kumar Reddy, Asst. Professor, Dept. of CE, has been re-elected as an affiliate member of the American Society of Civil Engineers. This noteworthy accomplishment demonstrates his engagement with the civil engineering field and reflects highly on our civil engineering program.

8. Dr. B Sudheer Kumar Reddy, Asst. Professor, Dept. of CE has contributed as a resource person in a "One day workshop on Primavera - P6 Software" organized by the Town Planning Department of Dr. YSR Architecture and Fine Arts University, Kadapa on 24th February 2024.

Ph.Ds Awarded: The University has awarded Ph.D. to 05 research scholars during this month. Details are as below

Ph.D Awarded List

Discipline	Number of Ph.D's Awarded
Electrical and Electronics Engineering	02
Chemistry	02
Pharmaceutical Sciences	01
Total	05

CONTRIBUTION OF ARTICLES TO THE E-MAGAZINE

TECH ANANTH

The members of the JNTUA fraternity all students, facility and alumni are requested to contribute for publication in the monthly illustrated on –line e-magazine 'Tech Ananth' of the University. The members can send submission to the editorial team email id<emagazine@jntua.ac.in>. the members can send reports of important events along with photos details of achievements such as awards, prestigious assignments and funded projects, success/inspirational stories for alumni, articles on science and technology which induce technical respective fields can write to the same email id by including <career counselling request> in the subject-line of the email id. Senior professors of the University shall answer to the counselling related questions which will be published. Members contributing articles shall give their full details such as Name, Designation, College, and Department with mobile number and email ID for correspondence.

Editorial Team
emagazine@jntua.ac.in

1. A meeting was held under the Chairmanship of Hon'be Vice Chancellor through virtual mode regarding implementation of edX program, an initiative of State Govt. of Andhra Pradesh & AP State Council of Higher Education on 01.02.2024. The Rector, Registrar, Director of Academic & Planning, Director of Evaluation, Director of Software Development and Principal of JNTUA College of Engineering, Ananthapuramu attended the meeting.

2. Hon'ble Vice Chancellor met the Honorable Governor, Andhra Pradesh at Raj Bhavan, Vijayawada, on 02.02.2024 along with the Registrar of the University.

3. Hon'ble Vice Chancellor congratulated Prof. P.R. Bhanu Murthy, who was assumed charge as Convener, AP ECET at AP ECET office, JNTUA, 05.02.2024. The Rector, Registrar, Principal JNTUA CEA attended the program.

4. Hon'ble Vice Chancellor met and greeted the Hon'ble Justice Sri Ahsanuddin Amanullah, Judge, Supreme court of India, New Delhi; Hon'ble Justice Sri Prashant Kumar Mishra, Judge, Supreme Court of India, New Delhi; Hon'ble Justice Sri S.V.N. Bhatti, Judge, Supreme Court of India, New Delhi; Hon'ble Justice Sri Dhiraj Singh Thakur, Chief Justice, High Court of Andhra Pradesh; Hon'ble Sri Manan Kumar Mishra, Sr. Advocate, Supreme Court, Chairman, Bar Council, New Delhi; Hon'ble Justice Sri Akula Venkata Sesh Sai, Judge, High Court of AP and Hon'ble Justice Sri K. Suresh Reddy, Judge, High Court of Andhra Pradesh during the Workshop for Young Advocates on 10.02.2024 organized by the Bar Council of India in collaboration with the Bar Council of the State of Andhra Pradesh and the Anantapur Bar Association.

5. Hon'ble Vice Chancellor reviewed the preparations of the departments for the NAAC peer team visit on 12.02.2024.

6. Hon'ble Vice Chancellor reviewed the preparations of the departments for the NAAC peer team visit on 13.02.2024 and 14.02.2024.

7. Hon'ble Vice Chancellor attended a meeting on implementation of edX program, hosted by A.P. State Council of Higher Education through virtual mode on 15.02.2024.

8. Hon'ble Vice Chancellor attended a meeting at the District Collectorate, Ananthapuramu in connection with the Launching of edX program by the Honorable Chief Minister of Andhra Pradesh through virtual mode from CM Camp office, Tadepalli on 16.02.2024. The Registrar and students attended the program.

9. Hon'ble Vice Chancellor visited JNTUA College of Engineering, Pulivendula and JNTUA College of Engineering, Kalikiri campuses and conducted meetings with the Heads and staff in connection with NAAC Peer Team visit on 17.02.2024. The Principals and Vice Principals of their respective colleges attended the meeting.

10. Hon'ble Vice Chancellor attended 1st CET Committee meeting of APECET - 2024, as a chairperson held through virtual mode on 19.02.2024. The Chairman, APSCHE; the Convener, AP ECET and Co Conveners attended the meeting.

11. Board of Studies meeting was held through virtual mode under the Chairmanship of Hon'ble Vice Chancellor regarding M.Tech. Structures (Bridges & Tunnels) on 20.02.2024. The Rector, Registrar, Head and faculty of Civil Engineering department attended the meeting.

12. In view of NAAC Peer Team visit scheduled during 22-24 February 2024, the University conducted Mock NAAC visit during 2-3 February 2024 with Prof. K. Thyagarajan & Prof. S. Muttan from Anna University and Prof. M.G. Sethuraman, Gandhigram Rural Institute, Tamil Nadu as members to assess to assess preparation of the University and suggest improvements.

13. NAAC Peer Team visited JNTUA during 22-24 February 2024 for 1st Cycle of Accreditation and inspected the facilities of the University with respect to Curriculum, teaching & Learning, Research, Students' progression, Infrastructure and Governance.

University Examinations Results

Results of the semester end examinations conducted by the university declared in the month of February 2024 are as below.

06.02.2024

MCA V Sem (R17) Supple. Exams Jan 2024, MCA IV Sem (R17) Supple. Exams Jan 2024, MCA IV Sem (R21) Supple. Exams Jan 2024, MCA III Sem (R17) Supple. Exams, Dec/Jan 2024, MCAIII Sem (R20) Supple. Exams, Dec/Jan 2024,MCA III Sem (R21) Regular &Supple. Exams, Dec/Jan 2024, MBA IV Sem (R17) Supple. Exams, Jan 2024, MBA IV Sem (R21) Supple. Exams, Jan 2024, MBA III Sem (R17) Supple. Exams, Dec/Jan 2024 and MBA III Sem (R21) Regular &Supple. Exams, Dec/Jan 2024

12.02.2024

B.Tech II Year I Sem (R15) (Last Chance) Supple. Exams, Dec 2023, B.Tech II Year I Sem (R15) Supple. Exams, Dec 2023, B.Tech II Year I Sem (R19) Supple Exams, Dec 2023, B.Tech II Year II Sem (R15) (Last Chance) Supple. Exams, Dec 2023, B.Tech II Year II Sem (R15) Supple Exams, Dec 2023, B.Tech II Year II Sem (R19) Supple Exams, Dec 2023 and B.Tech II Year II Sem (R20) Supple Exams, Dec 2023

24.02.2024

M.Sc IV Semester (R21) MOOCs Supplementary Examinations, February 2024.

NCC/NSS/Service Programmes

Webinars, awareness sessions, seminars, and competitions were conducted by NSS units of the constituent colleges/units in the month of February 2024:

1. Awareness programs on World Cancer Day were conductedon 05.02.2024.
2. Blood donation camp at Gooty College of Engineering, Gooty on 07.02.2024.
3. "Pulses- Nourishing soil and People" program at Seven Hills college of Pharmacy.
4. Blood Grouping Camp at JNTUA College of Engineering Anantapur on 28.02.2024.
5. Plantation program at Swathi College of Pharmacy, Nellore on 29.02.2024.

Journal/Conference Publications

- The faculty members of the University published 11 research papers and affiliated colleges have published 75 research papers in peer reviewed journals, seminars & conferences during this month.

Projects Initiated/ completed

- Department of Civil Engineering, JNTUA College of Engineering Ananthapuramu generated an amount of Rs. 1,55,976/-through Industrial Consultancy Services.

JNTUA CEA

1. Hon'ble Vice Chancellor visited JNTUA College of Engineering, Ananthapuramu in connection with plantation of trees in front of Hampi Hostel, on 15.02.2024. The Principal, NSS Coordinator, staff and students of the college attended the program.

2. Hon'ble Vice Chancellor attended as a Chief Guest and inaugurated a three day Hackathon on "Internet of Things" conducted by Department of Electronics and Communication Engineering, JNTUA College of Engineering, Ananthapuramu on 15.02.2024. The Principal, Vice Principal, Head of ECE, Coordinator, faculty and students attended the program.

3. Hon'ble Vice Chancellor attended the 7th Committee meeting of Institute of Engineers India (IEI) Andhra Pradesh held at JNTUA College of Engineering, Ananthapuramu on 25.02.2024. The Chairman (IEI), The Honorary Secretary (IEI), The Chairperson of Local Centre, AP and members of the Institute of Engineers India (IEI) Andhra Pradesh attended the meeting.

4. A meeting was held under the Chairmanship of the Hon'ble Vice Chancellor on 26.02.2024 regarding proposals for PURSE scheme of DST. The Rector, Registrar, Principal, Vice Principal, Heads of the departments of JNTUA College of Engineering, Ananthapuramu were present.

JNTUA OTPRI

Hon'ble Vice Chancellor participated as Chief Guest and performed Bhoomi Pooja for the Academic Block, Boys & Girls Hostel at JNTUA OTPRI, Ananthapuramu, on 05.02.2024. The Rector, Registrar, Director, Principal, Staff and Students of OTPRI participated in the program.

" Books / Book Chapters Published "

1. Bandi Vamsi faculty of Madanapalle Institute of Technology & Science, Madanapalli published an article titled "A Detailed Case Study on Various Challenges in Vehicular Networks for Smart Traffic Control System Using Machine Learning Algorithms" in Artificial Intelligence and Machine Learning for Smart Community: Concepts and Applications, DOI: 10.1201/ 9781003409502-3.

2. Dr. V. Narasimhulu faculty of Rajeev Gandhi Memorial College of Engineering & Technology published a book chapter titled "Performance Analysis of Single-Stage PV Connected Three-Phase Grid System under Steady State and Dynamic Conditions", indexed in Google Books.

3. Dr. NallaBala Kalyan, faculty of Sri Venkateswara College of Engineering, Tirupathi Published a book titled "Innovation and Entrepreneurship Development" by Noor Publishers, S.R.L. London, ISBN: 978-620-5-63798-2, (2024).

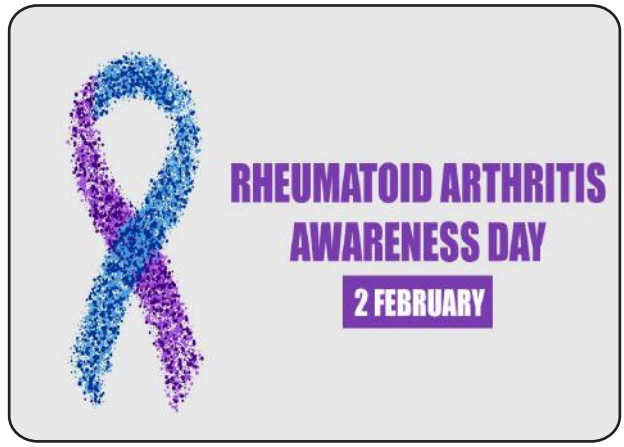
4. Dr.P.Sirisha faculty of Sri Venkateswara College of Engineering published a book titled "Examining Women Entrepreneurs' Attitudes towards Informal Funding Sources and Their Empowerment in Tamil Nadu: An SEM Analysis"." Published in IUP Journal of Entrepreneurship Development, February 2024, Vol 21, Issue 3, p7, ISSN: 0973-2659.

5. Dr.P.Sirisha faculty of Sri Venkateswara College of Engineering, Tirupathi published a book titled "Optimizing Lead Generation Strategies for Enhanced Performance in the Hospitality Sector in Tamil Nadu" published in Development Economics: Microeconomic Issues in Developing Economies E journal ELSEVIER (SSRN) Social Science Research Network, Volume 08, Issue 08, Pages: 511–517, ISSN 2456 – 5083

6. Dr. Shaik Rafi Kiran and Dr. Y V Krishna Reddy faculty of Sri Venkateswara College of Engineering, Tirupathi published a book titled "ChatGPT: Comprehensive Study on Generative AI Tool" with ISBN Number 978-81-970274-5-1, publisher: Infinite Research.

Important National & International Days in February

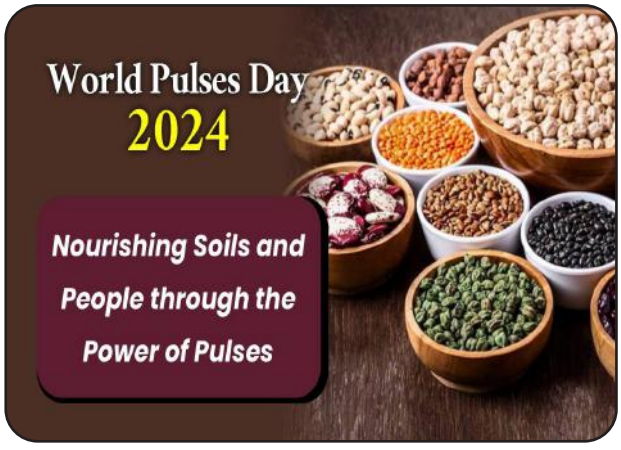
On 1st February, the Indian Coast Guard celebrates its foundation day. Indian Coast Guard has played a significant role in securing the Indian Coasts and enforcing regulations within the Maritime Zones of India.



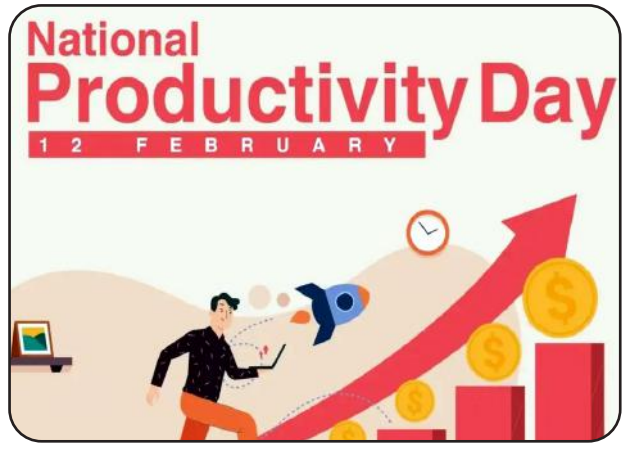
RA Awareness Day is Rheumatoid Arthritis Awareness Day and is observed on 2nd February to spread awareness for patients suffering from rheumatoid arthritis.

Every year on 2nd February, World Wetlands Day is celebrated internationally. This day marks the date of the adoption of the Convention on Wetlands on 2nd February 1971, in Ramsar, Iran.

Every year on 4th February World Cancer Day is observed globally and is celebrated by WHO to aware people of the disease Cancer and how to cure it.

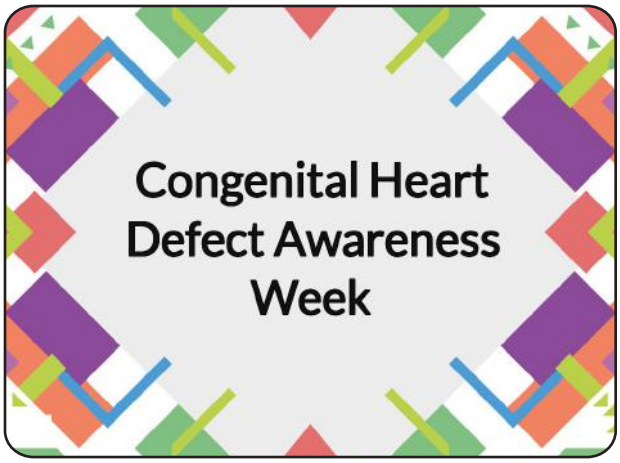


It is observed on 10th February to spread awareness about the nutritional and environmental benefits of pulses as part of sustainable food production.



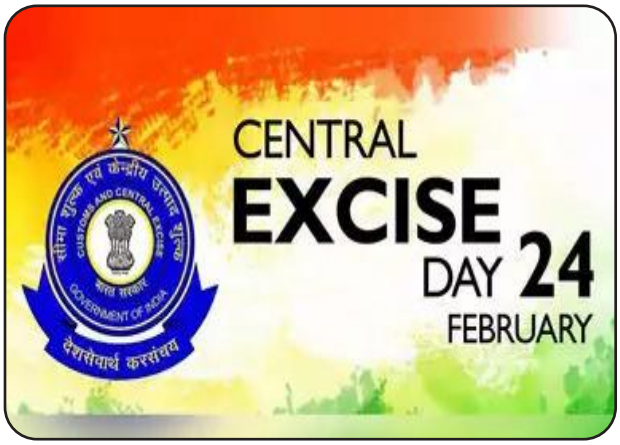
It is observed on 12th February annually to increase the productivity culture in India. It is celebrated by the National Productivity Council (NPC) with a theme.

World Radio Day is celebrated on 13th February to raise awareness about the importance of Radio. In several countries, it is the primary source for providing information.



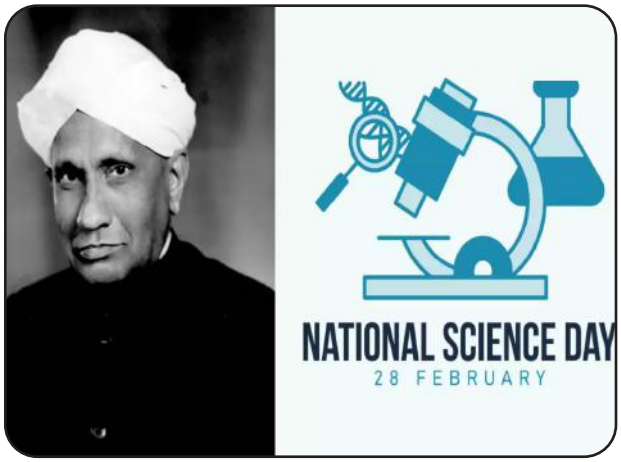
Every year on February 14, there is a celebration called World Congenital Heart Defect Awareness Day to bring attention to and educate people about congenital heart defects.

World Day of Social Justice is observed every year on 20th February to encourage people to see how social justice affects poverty eradication. The main aim of this day is to achieve full employment and support for social integration.



Central Excise Day is observed in India on 24th February every year to encourage the employees of the excise department to carry out the central excise duty in a better way to prevent corruption in the manufacturing business and to carry out the best possible exercise services in India.

World NGO Day is dedicated to recognizing, celebrating, and honouring all non-governmental and non-profit organizations, and also the people behind them that contribute to society.



National Science Day is celebrated every year in India on 28th February to mark the discovery of the Raman Effect by the Indian physicist Sir Chandrasekhara Venkata Raman. He discovered the Raman Effect on 28th February 1928 and for this discovery, he was honored with the Nobel Prize in Physics subject in 1930.

From the Chairman's Desk

A BOOK IS A DREAM THAT YOU HOLD IN YOUR HAND

Lloyd Alexander says "Keep reading. It is one of the most marvelous adventures anyone can have". Would it not be nice if we have a friend who never leaves us throughout our life; who constantly motivates us and shows the way forward; consoles us when we are sad; gives wise advice when we are in doubt; entertains us when we are in a cheerful mood; gives us wisdom; inspires us to improve our life; makes us travel through the entire world, sitting at home; and imparts us proper insights to understand life in all its glory. Well, a good book does all these things. Ernest Hemingway, a famous English writer stated that "There is no friend as loyal as a book".

Lucky is that person who develops the habit of book reading at an early age. Books have the potential to transform lives. Almost all the great personalities of the world are voracious readers. A library is a treasure house of knowledge and wisdom. Book reading makes a person more creative. Great thoughts in books sometimes reveal us the unknown wonders of life and nature. After reading a good book, you will feel extremely happy and become a different person. The internal transformation is very satisfying and motivates you to read more books. That's why it is stated that books are uniquely a portable magic. It is also said that reading is to the mind as exercise is to the body.

In any European country, you find people reading some book or other while they travel in trains to their work very often. They do not waste time in gossip or trivial talk. Unfortunately, in our country, youth are distancing themselves from this habit of book reading and addicted to social media. They are missing an invaluable treasure. Start reading books. It doesn't matter whether you read English or Telugu books. Initially, start with those books that are interesting to you. Gradually, you will start to enjoy reading. You will become a new version of yourself. Let me conclude in the words of William Styron, "A great book should leave you with many experiences, and slightly exhausted at the end. You live several lives while reading."

ఒక పుస్తకాన్ని చదువు
తెలియని మంత్రనగరపు రహస్య ద్వారమేదో తెరచుకుంటుంది
అంతదాకా మూసుకుపోయిన మూడో కన్నేదో రెప్పవిప్పుతుంది
జీవితం వేలరంగులతో నీ ముందు ఇంద్రధనుస్సులా సాక్షాత్కరిస్తుంది

Prof. K. Hemachandra Reddy
Chairman, APSCHE

Glimpses of NAAC Peer Team Visit to JNTUA

22-24 February 2024

Day 1

Grand Welcome of NAAC Peer Team Members

Presentation by Hon'ble Vice Chancellor

NAAC Team @ Central Library

NAAC Team @ CCC

NAAC Team @ Dispensary

NAAC Team @ Women Empowerment Cell

NAAC Team Visiting various Academic Departments

@ Science Block

@ Civil Engineering Department

@ Electrical & Electronics Engineering Department

@ Mechanical Engineering Department

@ Chemical Engineering Department

@ Indoor Stadium

@ OTPRI Ananthapuramu

@ NSS Office

@ School of Management Studies

Day 2

Visit to Exhibition Stalls

@ NCC Stall

@ Tech Ananth E-Magazine Stall

@ Stall by Department of Food Technology , JNTUA CEK, Kalikiri

@ NSS Stall

Visit to Working Models Exhibition

Visit to Lecture Hall Complex

@ Student Hostel

Cultural Program by University Students

NAAC Peer Team Interaction with Students, Parents & Alumni

Day 3

Exit Meeting with University Leadership

LENS TECH

01.02.2024 - Meeting held under the Chairmanship of Hon'be Vice Chancellor through virtual mode regarding implementation of edX program, an initiative of State Govt. of Andhra Pradesh.

11.02.2024 Vice Chancellor Prof.G.V.R. Srinivasa Rao performing House Warming Ceremony.

13.02.2024 - Vice Chancellor Prof. G.V.R. Srinivasa Rao Reviews NAAC presentations of HoDs.

15.02.2024 -Vice Chancellor Prof. G.V.R. Srinivasa Rao addresses non teaching staff in conncection with NAAC Peer Team Visit.

16.02.2024 - Live Streaming of launching of edX Courses by Hon'ble Chief Minister @ NTR Auditorium.

Tech Ananth

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

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