THE QUARTERLY NEWSLETTER OF NIT RAIPUR

















QUARTERLY GLIMPSES

INDEPENDENCE DAY















RESEARCH SCHOLARS' CONCLAVE















INDUCTION PROGRAM





















NAYA BHARAT UTSAV













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NIT RAIPUR IN MEDIA

NIT Raipur hosts seminar on 'Stress management through value education'

NIT Raipur organised plantation drive under 'Ek Ped Maa ke Naam'



'एआइ से 2030 तक पड़ेगा गहरा प्रभाव, कार्यबल बदलेगा, उपकरणों का होगा विस्तार' एनआइटी रायपुर में आर्टिफिशियल इंटेलिजेंस और डेटा साइंस पर व्याख्यान सत्र का हुआ आयोजन राष्ट्रिय केवार एनकेक मिना कर सकता है। मानित केवार प्रभाव

NIT Raipur hosts 'Aura': The Photography Exhibition



'Yuva Samvaad' organised as part of Naya Bharat Utsav at NIT Raipur

NIT, NITTTR sign MoU for institutional collaboration

NIT Raipur organises 3rd Research Scholars' Conclave 2024

फाइनल में एनआइटी स्ट्राइकर्स ने रायल्स को हराया, बनी चैंपियन

NIT Raipur, UNICEF CG hold National Stakeholder's Conference on 'Water, Energy & Climate: Vision For Chhattisgarh'

NIT welcomes new students with induction programme

■ Staff Reporter RAIPUR, Aug 28



vated the students to make the most of their time, likening life to grains of sand that should academic building at NIT Raipur

Foundation stone laid for new

NIT organises industry expert talk

Staff reporter

Awareness seminar, quiz competition on BNS 2023 held at NIT Raipur

RAIPUR, July 1

NATIONAL Institute of Technology (NIT) Raipur

Suraksha Sanhita (BNSS-2023) and Bharatiya Sakshya Adhiniyam (BSA-2023), which was enacted from of July 1, 2024.



(BNS) 2023, explaining new methods for registering FIRs and NCRs, including the introduction of eFIRs. He emphasised the enhanced rights and protections for witnesses and

NIT Raipur organises programme on stress management

RAIPUR, June 28

IN A significant developmen

Raipur and CSIR-NGRI Hyderabad. The agreement signed by both parties outlines several key areas of cooperation.



NIT Raipur organises awareness workshop 'Energy Conservation'

RAIPUR, Aug 13

NATIONAL Institute of Technology (NIT) Raipurincol-

Rana, CEO of CREDA.

R S Bhakuni highlighted
CREDA's significant achievements such as the installation
of 1.60 lakhsolarenergy pumps
and over 30,000 drinking



NITRRFIE, MNNIT Allahabad sign MoU to promote incubation related activities

Institute News

NIRF 2024: 71st Rank

NIT Raipur has been consistently performing well in the National Institutional Ranking Framework (NIRF). The Institute holds the 71st rank in NIRF 2024 in the Engineering category. The Teaching, Learning & Resources (TLR) score increased from 55.59 in 2023 to 57.83 in 2024, while the Research, Professional Practice & Collaborative Performance (RPC) improved from 40.36 to 40.80. Additionally, the Graduation Outcome (GO) score rose from 64.35 to 65.98, and Outreach and Inclusivity (OI) increased from 55.81 to 56.96. These enhancements reflect the institute's ongoing focus on academic, professional growth and its continued efforts to enhance research output, foster professional growth, and strengthen collaborative initiatives.

78th Independence Day Celebration

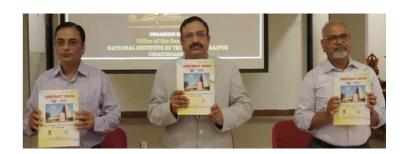


NIT Raipur celebrated 78th Independence Day on 15th Aug. 2024. The event commenced with Dr. N. V. Ramana Rao, *Director, NIT Raipur*, hoisting the national flag, symbolizing the enduring spirit of freedom and unity, followed by the national anthem and a parade led by cadets of NCC. Addressing the assembly, Dr. Rao highlighted the Institute's significant contributions through major events, including the successful organization of the 19th Chhattisgarh Young Scientist Congress and the launch of the new M.Tech. Program in Urban Planning and also emphasized the importance of institute's role in addressing critical national challenges, such as the Mahanadi River Basin study.

The event continued with a series of vibrant cultural performances. India's diverse cultural heritage was showcased through a series of poetry recitations, songs, and dances by Sanskriti – The Cultural Committee, musical performance delivered by Raaga – The Music Club. Nrityam – The Dance Club highlighted India's cultural versatility with traditional dances like Bihu, Kathak, and Garba. Additionally, the legacy of Independence Day was explored in a

documentary presentation by the **Public & Media Relations** Cell (PMRC). The festivities concluded with a *Tiranga Yatra* across the campus and a meaningful plantation drive, titled **Ek Ped Maa ke Naam**, emphasizing the importance of environmental stewardship. The Unnat Bharat Abhiyan (UBA) Club, NIT Raipur organized a visit to the *Government School*, *Nardaha village*, *Raipur*, under the guidance of **Dr. Sudhakar Pandey**, *Regional Coordinator*, and **Dr. Harendra Bikrol**, *PI Coordinator*, *UBA*. Students from the UBA Club took an active part in various activities, including cultural performances, an awareness rally, and the donation of cricket bats along with an array of games to the Government School. This event was crafted to inspire a deeper sense of responsibility towards rural development and education.

3rd Research Scholars' Conclave 2024



Dean (R&C) office, NIT Raipur officially unveiled the 3rd **Research Scholars' Conclave 2024** on 25th Jun. 2024. The 3-day Research Conclave, held from 25th to 27th Jun. 2024, was organized for Ph.D. scholars at NIT Raipur. The event featured **Dr. N. V. Ramana Rao**, *Director, NIT Raipur*, as the *Chief Patron* and *Guest*, with **Dr. Shrish Verma**, *Dean (Academics)*, as *Guest of Honor*. **Dr. P. Diwan**, *Dean (R&C)*, chaired the conclave. *Organizing secretaries* included **Dr. Anamika Yadav**, *Hod*, *EE*, **Dr. J. Anandkumar**, *Associate Dean*, *(R&C)*, **Dr. Manvendra K. Tripathi**, *Associate Dean*, *(R&C)*, **Dr. Awanish Kumar**, *HoD*, *DBT* and **Dr. Tirath Prasad Sahu**, *Assistant Professor*, *IT*. The conclave provided scholars a platform to present their research and foster innovation in various R&D sectors.

Dr. Anamika Yadav's highlighted the event's significance, and the collaborative efforts involved. **Dr.** P. Diwan emphasized the conclave's role in promoting academic and research excellence, announcing the submission of 246 high-quality abstracts. **Dr.** Rao outlined the conclave's objectives, and **Dr.** Shrish Verma stressed the importance of research. The ISBN Abstract Volume was then released by the dignitaries, and **Dr.** J. Anandkumar concluded the ceremony

with a vote of thanks. Following the inauguration, **Dr. Rao** delivered a keynote lecture on **Research Publication and Ethics**. He provided an insightful overview of the process for publishing in Scopus-indexed journals. Thereafter, **Dr. Dharam Pal**, *Associate Professor*, *DCE* delivered a keynote session on **Responsible Conduct of Research and Academic Writing Skill**. He addressed research ethics, focusing on data fabrication and writing skills. The event also honoured scholars from 18 departments and their coordinators with certificates, followed by shared experiences.

Dr. P. Diwan announced plans to publish a book, while acknowledging the coordinators' essential support. **Dr. Rao** urged scholars to prioritize obtaining patents, publishing research papers, and cultivating disciplined reading and writing habits. **Dr. Samir Bajpai**, *Head (CDC)*, *NIT Raipur*, highlighted the importance of controlled use of generative AI and interdepartmental collaboration in research. A feedback session was organized, and the event concluded with a vote of thanks by **Dr. T. P. Sahu**, *Organizing Secretary*, *Research Scholar Conclave*.

Induction program for newly admitted students



NIT Raipur organized an Induction Program on 28th Aug. 2024 to welcome and introduce the newly admitted B. Tech and B. Arch students to the institute's culture, academic structure, and various clubs and committees. The event was graced by Dr. N. V. Ramana Rao, Director, NIT Raipur, Dr. Suresh Haware, Chairperson, BoG, NIT Raipur, Dr. P. Y. Dhekne, Registrar, NIT Raipur, Deans, faculty members and first year students were present during the program. Dr. Rao delivered the inaugural address, giving an overview of the Institute's facilities and achievements and welcomed the new students and encouraged them to strive for excellence and make the best of their academic journey at NIT Raipur.

Dr. Haware praised the Institute's achievements and urged students not to become complacent. He stressed the importance of communication skills, building friendships, and making the most of their time. Subsequently, **Dr. Shrish Verma**, *Dean* (*Academics*), *NIT Raipur* explained the

academic structure and various programs offered, including UG and PG courses and provided details on the academic calendar, registration processes, grading systems, and performance indices. Dr. Nitin Jain, Dean (SW) elaborated the history of the Institute and its objectives, highlighting the role of various clubs and committees, including flagship events like Eclectika, Aavartan, Samar and Shruti. He shared visuals of these events and spoke about initiatives like Yuva Sangam Phase 2 that facilitates cultural exchange between Nagaland and Raipur students and also discussed the dispensary services, amenities, counselling services, antiragging measures, scholarship portals, and student financial assistance schemes available In the subsequent session, Dr. Pradeep Singh, HoD, CSE provided information about the Boys Hostels, while Dr. Shubhrata Gupta, Chief Warden, Girls Hostel made everyone aware of the rules of the Girls Hostels. Dr. Samir Bajpai, Head (CDC), NIT Raipur, highlighted the importance of career development through character building and introduced the four cells under the CDC - Placement Cell, Training Cell, Entrepreneurship Cell and Innovation Cell and emphasized the need for early engagement, career planning, and the steps required for achieving early placements, also sharing the recent accomplishments of students of NIT Raipur.

A lecture on the topic **Life Lessons from Ramayana** was delivered by **Mr. Yashodeep Deodhar**, *Ex-McKinsey & Co* and *Alumnus (IITB* and *IIMA)* which provided values of life in the light of moral and spiritual education. **Mr. Deodhar** has a YouTube channel named *21 Notes*. He presented a beautiful depiction based on the life, struggle and achievements of *Lord Rama* and the values of life were explained through various characters of **Ramayana** and their stories. The entire session was concluded with the presentation of a shawl and memento to **Mr. Deodhar**.

National Space Day 2024



NIT Raipur marked National Space Day with a special event on 23rd Aug. 2024 which saw the presence of Dr. N. V. Ramana Rao, *Director*, *NIT Raipur*, Dr. Nitin Jain, *Dean (SW)*, faculty members and students. The event was organized under the guidance of Dr. N. V. Swamy Naidu, *Faculty In-*

Charge, Aviation Club. The event was formally declared open by Dr. Naidu, setting the stage for a day of insightful discussions and celebrations. Dr. Rao emphasized the day's importance, highlighting the theme Touching Lives, While Touching the Moon, and noted how space technology profoundly impacts everyday life, from communication to environmental monitoring. The event continued with an online insightful speaker session featuring Mr. Abhijit Kibe, Scientist, ISRO, shared his insights from working on the Solid Propulsion and GSLV Project's Mechanical Integration Area and provided an in-depth look at India's Gaganyaan Program and discussed the significance of National Space Day, celebrating India's space achievements. Team SpaceNovas presented their CanSat Mechanisms project, which significantly sparked interest in space exploration among the students. The event concluded with a Quiz competition titled Bharat in Space: Exploring India's Space Program, featuring questions about India's space missions from past to present. Rishabh Raj secured 1st place, Aryan coming in 2nd, and Ishan Daharia secured 3rd. Additionally, a Poster **Exhibition** showcasing India's remarkable achievements was displayed on campus, further inspiring and educating the participants about the nation's progress in space exploration.

A live webcast of National Space Day celebration from **Bharat Mandapam**, *New Delhi*, was held at the institute. The event featured an address by **Her Excellency President Droupadi Murmu** where praised ISRO's remarkable efforts and reflected on the historic moment of Chandrayaan's successful landing on the moon, underscoring the significance of India's advancements in space exploration. The live telecast was attended by **Dr. Rao**, **Dr. Jain**, **Dr. M. K. Prasad**, *Associate Professor*, *DoM*, **Dr. Naidu**, along with faculty members, staff, and students. During the webcast, awards for various national-level technical competitions were distributed, and videos showcasing ISRO's, and India's space achievements were presented.

Vibhajan Vibhishika Smriti Diwas'24



NIT Raipur observed the Vibhajan Vibhishika Smriti Diwas'24 on 14th Aug. 2024 to reflect on the Horrors of Partition. The event was graced by Dr. Purnendu Saxena,

Chairman, VY Hospitals as Chief Guest, and Dr. N.V. Ramana Rao, Director, NIT Raipur as Guest of Honor. The event was attended by large number of students, scholars and faculty members of the institute. The dignitaries were welcomed by Dr. S. L. Sinha, HoD, ME, Dr. Dilip Singh Sisodia, Associate Professor, CSE and Dr. Anuj Shukla, Assistant Professor, ME. The function was organized under the guidance of Dr. Suresh Kumar Rajana, Assistant Professor, ME and Dr. Meena Murmu, Assistant Professor, CE. Dr. Rao highlighted the large-scale loss of life due to partition and appealed to the audience to strive for a strong and peaceful India. Dr. Saxena elaborated on the side effects of the partition and poignantly illustrated the pain through references to the movie Vaqt.

The event also featured a **Speech competition** and a **Poster presentation**, providing a platform for students to express their thoughts on the subject. **Sameer Srivastava** emerged as the **Winner** of the speech competition, with **Anushk Singh**, securing the **Runner-up position**.

Stakeholder Conference on Water, Energy & Climate



NIT Raipur in collaboration with UNICEF Chhattisgarh organized a One-Day Stakeholder's Conference on Water, Energy & Climate: Vision for Chhattisgarh on 4th Jul. 2024. The event was graced by Mr. Prasanna R, Secretary, Higher Education, Govt. of C.G. as the Chief Guest and Mr. Mohammad Qaiser Abdul Haq, Secretary, PHED, Govt. of C.G and Mr. William Hanlon Jr, Chief, UNICEF Odisha & Chhattisgarh as the Guests of Honor. Special Guests were **Dr.** M.K. Verma, Vice Chancellor, CSVTU Bhilai & Prof. Piyush Kant Pandey, Chief Vice Chancellor, Amity University, C.G. and Dr. N.V. Ramana Rao, Director, NIT Raipur. The Organizing secretaries for the event were Dr. Ishtiyaq Ahmad, Assistant Professor, CE and Dr. Govardhan Bhatt, Assistant Professor, CE from NIT Raipur, along with Ms. Sweta Patnaik and Mr. Abhishek **Singh** from *UNICEF Chhattisgarh*.

Dr. Rao emphasized sustainable water management, equitable access, and renewable energy, urging collaboration for a

sustainable vision. Dr. Verma highlighted the need for sustainable technology in water resources and renewable energy. Dr. Pandey discussed Chhattisgarh's role in CO2 absorption and advocated for carbon capture policies. Dr. Qaiser noted the shift from hand pumps to over 40,000 tube wells and borewells to ensure water quality, expressing hope that the workshop would provide solutions for the state government and community. Dr. William emphasized the need for water quality and climate-focused planning. Dr. Prasanna discussed climate change's daily impact, stressing the importance of a vision plan for sustainable development. In the first panel, Ms. Asha Lata Gupta, Assistant Engineer, PHED highlighted Chhattisgarh's generally good water quality, with exceptions in areas like Bastar. Er. Javant Kumar Bisen, Assistant Engineer, Department of Water Resources, Chhattisgarh emphasized clean water and sanitation as top priorities, discussing plans for a water vision document for Amrit Kaal. In the second Energy session, Prof. Professor, Shantanu Bhadra, Assistant Strategic Management, IIM Raipur stressed the careful use of limited energy resources like coal and oil, noting Chhattisgarh's lower energy production compared to neighbouring states. Er. Kapil Chandoik, Vice President, Hira Group, highlighted the challenges of power generation in Chhattisgarh and urged a shift in attitudes toward energy conservation. In the last session, Dr. Bhumika Das, Associate Professor, LCIT Bilaspur highlighted ongoing climate change in Chhattisgarh, attributing a significant role to deforestation. Mr. Biraja **Satapathy**, WASH Officer, UNICEF noted India's rank as the third most polluted country globally, causing rising respiratory problems. The aim of the event was to strategize and promote sustainable development in water, energy, and climate sectors in Chhattisgarh.

Naya Bharat Utsav



NIT Raipur hosted the event Yuva Samvad as part of the Naya Bharat Utsav, a nationwide celebration marking 10 years of the Modi government on 22nd Aug. 2024, which was graced by several personalities, including *Chief Guest Shri.* Brijmohan Agrawal, *Member of Parliament, Raipur Constituency* and *Special Guests* including Dr. Sachidanand Shukla, *Vice Chancellor*, Pt. Ravishankar Shukla University, Raipur, Dr. Rajiv Prakash, Director, IIT Bhilai, Dr.

Shailendra Shukla, Retired Chairman, Chhattisgarh State Electricity Board (CSEB), Mr. Deepak Mahskey, Independent Director, Ministry of Petroleum, Government of India (GoI) and was hosted by Dr. N. V. Ramana Rao, Director, NIT Raipur, Dr. Anuj Shukla, Assistant Professor, ME, Mr. Daansingh Dewangan, Ms. Pallavi Pandev and Mr. Sanjay Joshi, Members, Organising Committee. Dr. Rao highlighted the institute's role as a hub for technological innovation and exploration, quoting Prime Minister Narendra Modi on the vision of a new and better India, growing stronger through robust educational institutions and emphasised India's significant strides in development from villages to cities. Dr. Rajiv spoke about the institute's commitment to Viksit Bharat@2047 stressing the importance of student efforts in boosting the economy and noted IIT Bhilai's investments in Fintech, Agritech and Medtech sectors and the promotion of a startup culture within the college as contribution to the society. Mr. Mahskey reflected on India's exponential growth over the past decade, particularly its resilience during the COVID-19 pandemic and encouraged students to continue contributing to the nation's progress. Dr. Shailendra discussed the remarkable advancements in the energy sector, with electricity generation quadrupling over the last decade and praised the One Nation, One Grid policy for reducing power cuts and accelerating infrastructure growth.

Dr. Shukla shared his observations on India's economic and infrastructural development, particularly post-demonetization and lauded the government's efforts to revive ancient culture to bolster national growth. In the Q&A session, **Shri. Agrawal** engaged with students from the institute where he attributed Prime Minister's influential foreign policies, emphasising the mutual respect and collaboration between India and other nations. The event also featured the inauguration of a photo exhibition, and various stalls set up by government and private institutions. Winners of competitions organized by the government to generate ideas for state development were honoured with awards and certificate. The day concluded with performances by **Raaga – the Music Club** and **Nrityam – the Dance Club** followed by a vote of thanks delivered by **Dr. Shukla**.

Awareness Seminar and Quiz Competition on Bharatiya Nyaya Sanhita

NIT Raipur organised an Awareness seminar and Quiz Competition on Three Criminal Laws (BNS 2023) on 1st Jul. 2024. The event was graced by Dr. R.K. Tripathi, Director(I/C), NIT Raipur. In this event Dr. Samir Bajpai,

Head (CDC), NIT Raipur, **Dr. Shrish Verma**, Dean (Academics), NIT Raipur and **Dr. Nitin Jain**, Dean (SW), NIT Raipur were present. This event was coordinated by **Dr. Y. Vijaya Babu**, Assistant Professor, DHSS and Nodal Officer, BNS, NIT Raipur.



Dr. Parvesh Kumar Rajput, Assistant Professor of Law, HNLU Raipur served as the Chief Speaker. The program was attended by faculty Members, staff members, PhD scholars, and students. The Seminar was organized to spread awareness of the 3 new criminal laws, The Bhartiya Nyaya Sahita (BNS-2023), Bhartiya Nagrik Suraksha Sanhita (BNSS-2023) and Bharativa Sakshya Adhiniyam (BSA-2023), which would be enacted from 1st Jul. 2024. Dr. R.K. Tripathi stressed the need to update British-era laws to ensure proper punishment under the new legal framework. Dr. Parvesh Kumar Raiput highlighted the role of laws in shaping society, tracing the history of India's Law Commission and key legislations like the IPC and CrPC. He explained the replacement of the IPC with the Bharatiya Nyaya Sanhita (BNS) 2023, including new provisions like eFIRs, and emphasized enhanced rights for witnesses and women. Dr. Rajput also discussed the BNSS and BSS Acts. A quiz on the new BNS laws included topics such as Zero FIR and bailable offences. After the competition, certificates were awarded to all participants. Dr. Babu emphasized the importance of understanding the new laws and highlighted their benefits for both individuals and society.

Seminar on Mental Health Awareness



NIT Raipur organized a 3-day Seminar on Mental Health Awareness from 20th to 23rd Jul. 2024. The program was organized for mental and emotional health support for the employees, warden, staff members, security guards and workers of the institute. On the final day of the program, the concluding awareness session was held, in the presence of the *Chief Guest* Dr. N.V. Ramana Rao, *Director*, *NIT Raipur*. The session was also attended by, Dr. Samir Bajpai, *Head (CDC)*, Dr. S. Sanyal, *Professor*, *ME*, along with employees,

staff members, students, and senior citizens from senior citizen welfare forum of Raipur city.

Dr. Rao emphasized the importance of mental well-being, noting its role in fostering happiness and strong relationships. **Dr. Sanyal** praised **Dr. Heena Chawda**, *Faculty, DHSS* for successfully organizing the session. **Dr. Chawda** highlighted the importance of understanding emotions for mental well-being. **Dr. Bajpai** stressed the need to take time for self-improvement to enhance life quality. The programme ended with a feedback session where participants expressed their views on how they would like to attend more such sessions and concluded with a vote of thanks by **Dr. Bajpai**.

Swachhata Pakhwada



NIT Raipur organized the Swachhata Pakhwada campaign with an objective to create awareness among students about cleanliness and its benefits. Under this program, a cleanliness oath was administered by **Dr. Samir Bajpai**, *Head (CDC)*, with faculty, employees, and students. Dr. P. Y. Dhekne, Registrar, Dr. D. Sanyal, Dean (FW), Dr. M. K. Prasad, Associate Dean (SW), Dr. T. P. Sahu, Nodal Officer, Swachhata Pakhwada, and other faculty members, employees, and students actively participated. Following the oath, a slogan competition and an essay competition were organized. Dr. Sadhana Agarwal, Professor, DoP, Dr. Prasad, Dr. Sahu, and Dr. Y. Vijay Babu, Assistant Professor, DHSS, along with employees, PhD scholars, and students were present and participated. Dr. Babu informed participants about the competitions, allotting 30 minutes for the essay on India – then, now, and how it should be in terms of cleanliness and 5 minutes for the slogan competition on Clean campus to study with serenity. Dr. Prasad encouraged the participants, and **Dr. Sahu** motivated attendees for upcoming events. In the Essay Competition (English medium), Vicky Prasad, PhD Scholar, DHHS, secured first place, followed by Rubina Roy, DME, 3rd Sem, and Tanumala Thaurani with Abhijeet A Kumar from the Establishment Section. In Hindi, Himanshu Rajput, ME, 3rd Sem, took first place, followed by Priya Kashyap, PhD Scholar, DHHS, and Birendra Kumar, IT, 1st Sem. In the slogan competition, Dr. Sadhna Agarwal secured first place, while Adarsh Kumar, DME, 5th Sem, and Kriti Soni, EE, 5th Sem, took second place. Himanshu Rajput, ME, 3rd Sem, and Avish Kumar Srivastava placed third. Following the competitions, a **Shramdaan** program was organized to clean the institute's football ground. faculty, staff, and students, including **Dr. Sanjay Kumar**, *HoD*, *IT*, actively participated.

E-waste collection boxes were also placed across the campus to encourage responsible e-waste disposal. As part of the Swachhata Hi Seva and Swachhata and Minimizing Pendency campaigns, future activities such as tree plantation drives, and street plays are planned.

Awareness Session on Cervical Cancer



Dean (FW) Office, Department of Information Technology (IT) and Department of Chemistry (DoC) in collaboration with ICICI Bank organized an awareness session on Cervical Cancer on 28th Aug. 2024. The Chief Guest of this program was Dr. N. V. Ramana Rao, Director, NIT Raipur and other attendees include Dr. A. B. Soni, Professor, DCE, Dr. S. Sanyal, Professor, ME and Dr. Sanjay Kumar, HoD, IT. The Coordinators of this program were Dr. Mridu Sahu, Assistant Professor, IT and Dr. Tungabidya Maharana, HoD, DoC. Mr. Sushant Sahu, Regional Head and Mr. Deepesh Dev, Regional Head Sales and Mr. Raj Kshirsagar, Relationship Manager from ICICI Bank were also present.

The keynote speaker of the program was Ms. Sudeshna Ruhhaan, Director, Niramaya Foundation and an Alumnus. Dr. Rao said that with such programs, women become aware of their health, and they get to know about the disease on time, so that they can get it treated quickly. Ms. Ruhhaan named some of the major causes of cervical cancer as HPV (human papilloma virus), Bed Hygiene, Unsafe Sex and Weak Immunity and talked about some of its major symptoms like Heavier Periods, Urine Infection, Vaginal Bleeding etc. and said that in case of urine infection, drink a lot of water with mishri, eating ghee rice gives relief.

Giving more information about this, she said that one can avoid this disease by adopting some easy methods including good Genital Hygiene, HPV vaccination, Balanced Diet, Yoga and Meditation, Good Sleep etc. She gave the mantra of Go for hygiene, accept vaccine and advised the women present to do butterfly asana and eat raisins during periods. In the end, Dr. Maharana gave a vote of thanks.

IIT Bhilai, NIT Raipur and CSVTU Bhilai organised Implementation of Multiple Entry & Multiple Exit System and Academic Bank of Credit



IIT Bhilai, NIT Raipur and CSVTU Bhilai organised Implementation of Multiple Entry & Multiple Exit System and Academic Bank of Credit (ABC) under the aegis of AICTE and Shiksha Sanskriti Utthan Nyas, New Delhi on 13th and 14th Sept. 2024. This event was conducted under the guidance of Prof. Sanjay Agrawal, Pro - VC, CSVTU Bhilai, Dr. Dhruv Pratap Singh, Dean (Academic Affairs), IIT Bhilai, Dr. Anuj Kumar Shukla, Assistant Professor, ME, NIT Raipur, Mr. Ravi Prakash Tiwari and Dr. Ranjit Prasad, Professor (Retired), NIT Jamshedpur.

The inaugural ceremony commenced on 13th Sept. 2024 where Prof. Rajiv Prakash, Director, IIT Bhilai emphasized the need to integrate local languages, traditions, and culture into academic curricula and highlighted the role of inclusive education in promoting wider participation. Prof. N.V. Ramana Rao, Director, NIT Raipur shared his institution's experiences with implementing MEME and emphasized the successes and challenges faced in supporting working professionals in their continued education. Dr. Atul Kothari, National Secretary, Shiksha Sanskriti Utthan Nyas, New Delhi emphasised on breaking the barriers and creating multidisciplinary education, vocationalization and skill development. Mr. Prafull Pradeep Ketkar, Organizer highlighted the need to integrate interdisciplinary institutions for the effective implementation of NEP. During the panel discussion, several challenges in implementing MEME and ABC were identified, and suggestions were provided for establishing a robust Management Information System (MIS), standardizing degree names, and encouraging modular course structures.

The concluding panel discussion, moderated by **Prof. Rajiv** included esteemed panelists such as **Prof. Dr. Laxmidhar Behera**, *Director*, *IIT Mandi* and **Prof. G.S. Murthy**, *Professor*, *IIT Indore*. The discussion revolved around designing course structures aligned with IKS, initiating teacher training, and incorporating hands-on practical

sessions. The event concluded with a vote of thanks from **Prof. Dhruv Pratap Singh**, *Dean (Academic Affairs)*, *IIT Bhilai*.

NIT Raipur and Semicon India 2024



NIT Raipur and hosted a webcast for Semicon India'24 on 11th Sep. 2024. The video conferencing event, initiated by the Honorable Prime Minister Narendra Modi, aimed at engaging students and faculty nationwide. The event at NIT Raipur was attended by Prof. N. V. Ramana Rao, Director, NIT Raipur, Prof. Nitin Jain, Dean (SW), Dr. Toshan Meenpal, HoD, ECE. Dr. M. Krishna Prasad, Associate Dean (SW) along with other faculty and students. Prime Minister Narendra Modi discussed the imminent revolution in India's semiconductor sector and the country's goal to become a global semiconductor hub, outlining government steps to boost domestic chip production.

Expert Talk on Peace, Life and Career Development



NIT Raipur hosted an expert talk on Career and Character **Development** on 14th Aug. 2024. The *Chief Speaker* for this Swami Nikhileswarananda, Head, Shri event was Ramakrishna Ashram, Rajkot & an Alumnus. The event was attended by Chief Guest Dr. N. V. Ramana Rao, Director, NIT Raipur, Guest of Honor Dr. Samr Bajpai, Head (CDC), Dr. Nitin Jain, Dean (SW), other faculty members, students, and parents. The program was conducted by Dr. Moksha Singh, Assistant Professor, DHSS. Dr. Rao emphasized the importance of value education in our lives, particularly highlighting the concept of peaceful coexistence in a diverse country like India and praised the Indian government's New Education Policy 2020 for prominently including human ethics and value education in the curriculum. Swami Nikhileswarananda urged everyone to draw

inspiration from the life ideals of **Swami Vivekananda**, discussing Vivekananda's famous speech in Colombo in 1893, he encouraged everyone to embrace the mantra **Uttishthata**, **Jagrata**, **Prapya Varannibodhata** (Arise, awake, and stop not till the goal is reached) and emphasized the necessity of character building for nation-building, citing examples of great personalities like Mahatma Gandhi, Subhash Chandra Bose, and Pandit Nehru, who were inspired by Swami Vivekananda. **Swami Nikhileswarananda** also shared his vision for making India a developed country by 2047 and urged parents and teachers to play a crucial role in the character development of their children and students.

One Day Master Trainer Program

NIT Raipur organised Master Trainer program on My **Bharat Portal** on 23rd Aug. 2024. The event exuded a spirit of unity and collaboration among the attendees from the Higher Education Department, Chhattisgarh Govt and was organized and sponsored by Ministry of Youth Affairs and Sports, Government of India (GoI). Dr. Manu Vardhan, Nodal Officer, MyBharat, NIT Raipur welcomed the distinguished guests and participants. Dr. N. V. Ramana Rao, Director, NIT Raipur as Chief Guest, Shri. Rajkumar Verma, Yuva Officer, Regional Directorate, NSS Bhopal, MoYAaS, GoI as Guest of Honor and Smt. Neeta Bajpai, State NSS Officer, C.G. Govt., Master trainer Dr. Anoop Tiwari, Associate Professor, DHSS and Dr. Himanshu Govil, Assistant Professor, DAG and participants were present. Shri. Verma emphasized on My Bharat Portal and focused on the role of NSS program officers in making the mission possible. Smt. Neeta emphasized on adding Knowledge Institution on My Bharat Portal. **Dr. Tiwari** delivered the talk on My Bharat Portal features and helped the participants in understanding the portal in a much better way. Dr. Govil's presentation and hands-on session on My Bharat portal on adding Knowledge Institutions using dummy email, helps the participants in understanding the portal. The day featured three technical sessions on My Bharat portal, with a total of 55 participants from the Department of Higher Education, C. G. Govt., from all over Chhattisgarh. The sessions were chaired by Shri. Verma, providing a platform for in-depth discussions and knowledge exchange.

Plantation Drive - Ek Ped Maa Ke Naam

NIT Raipur marked a day of environmental importance on 9th Sep. 2024 by organising Plantation drive themed Ek Ped Maa Ke Naam under the Unnat Bharat Abhiyan (UBA) initiative. Dr. N.V. Ramana Rao, *Director*, *NIT Raipur*, Dr. Nitin Jain,

Dean (SW), and other distinguished faculty members graced the occasion.



The plantation drive was conducted under the guidance of **Dr. Sudhakar Pandey**, *Regional Coordinator*, *UBA* to promote environmental sustainability. **Dr. Rao**, planted a mango tree alongside students and faculty, highlighting the importance of conserving green spaces. The initiative reaffirmed NIT Raipur's commitment to societal responsibility and environmental preservation.

Nukkad Natak



NIT Raipur's students undertook a commendable initiative by performing a Railway Accidents at Kota Market near Saraswati Nagar Railway Station, Raipur on 26th Jul. 2024. The skit-play aimed to raise awareness about the increasing train accidents and demonstrated the innovative social responsibility of NIT Raipur's students. The performance was led by Shwet Raj and featured Amar Ram Madhu, Priyanshu Kumar, Kanhaiya Kumar, Murlimanohar Verma, Swarnava Dey, Rishabh Jain, Satyam Kumar, Anmol Jaiswal, Himanshu Rajpoot, and Hinesh Singh, showcasing their dedication to addressing critical safety issues in a creative manner.

Industry Institute Collaborations by IICC. NIT Rainur

Expert Talk on Emerging Trends in the Cyber Security Industry



Department of Computer Science & Engineering (CSE), NIT Raipur, organized an Industry Expert Talk on the topic Emerging Trends in the Industry on 23rd Aug. 2024 under the Industry Institute Collaboration Cell (IICC), NIT Raipur. The session was graced by Dr. Suyash Kandele, Alumnus (2015/CSE) & Cyber Security Specialist, Bosch Global Software Technology (BGSW). Dr. Kandele shared insights into the growing importance of cybersecurity, emphasizing the role of higher education in career advancement and encouraging students to focus on research. The event saw participation from 103 students and several faculty members. Dr. Pradeep Singh, HoD, CSE guided the Q&A session, and the event concluded with Dr. Kandele's felicitation.

Lecture titled use of Robotics and other Technologies in Treatment of Cancer and other Illnesses Department of Computer Applications (MCA) conducted an Expert Talk by Dr. Yousuf Memon, Director and Cancer Surgeon, Sanjeevani, CBCC USA Cancer Hospital, Raipur under IICC on the topic Use of Robotics and Advance Technology in Cancer and other Illnesses on 11th Sept. 2024. Dr. Memon discussed the role of robotic technologies in surgery and explained how these advanced techniques are enhancing precisions and improving treatment. Dr. Avinash Tiwari, Palliative and Pain specialist, Sanjeevani was also present in the event.



The event was aimed at providing students and faculty members with insights into the latest advancements in the fields of AI and robotics, as well as their real-world applications.

Workshop on Stress Management



NIT Raipur organized Stress Management Workshop with Integrated Amrita Meditation (IAM) Technique for the Faculty Members and Students on 31st Jul. 2024. The Workshop was conducted by Professors from the School of Spiritual Studies, Amrita University aiming at enhancing overall well-being. This program was organized in collaboration with the **Department of Humanities and Social** Sciences (DHSS), NIT Raipur. The event was graced by the presence of Dr. Samir Bajpai, HoD, DHSS, Mrs. Jyoti Rao, Dr. Manju Shukla, Faculty, DHSS and Mr. Suraj Nishad, Yoga Faculty, DHSS other faculty members and students were present. Integrated Amrita Meditation Technique is a simple and powerful meditation technique with a combination of Yoga, breathing exercises, Visualization, and Pranayama. **Brahmacharini Amritatmika** Chaitanva Brahmacharini Niseema, IAM instructors and Professors from School of Spiritual Studies, led the workshop through a series of stretching exercises, breathing techniques and visualization that is designed to reduce stress and improve concentration. The professors remarked that the daily practice will help them manage stress better, stay focused during lectures, and connect with their students on a deeper level.

Lecture titled Bioprocessing based Bioentrepreneurship: Untapped potential for R-Urban Geographies



Department of Biotechnology (DBT) organized a lecture by Dr. Abhijit G Banerjee, Chief Mentor and Executive Director, Genomic Bio-Medicine Research & Incubation, Chhattisgarh, India under IICC on the topic Bioprocessing based Bio-entrepreneurship: Untapped potential for R-Urban Geographies - A special focus on Chhattisgarhbased opportunities. The scope of Bio-entrepreneurship in Chhattisgarh was discussed in detail based on the critical points, including the feasibility of a product with a global

market, industriousness to overcome scientific and managerial challenges, the opportunity for agro-waste-based biorefineries in the context of Chhattisgarh, products ranging from aeromedicine's to biopolymers, biofilms and biofuels, serving three closely linked biotech sectors (Agriculture, Healthcare and Industrial Biotechnology), potential for metabolic engineering in the development of novel and enhanced productivity of bio-products thereof and finally, future research and incubation in NIT Raipur.

Industrial Visit to M/S Jayaswal Neco Industries



Department of Metallurgical and Materials Engineering (MME), NIT Raipur, organized an Industrial Visit to M/S Javaswal Neco Industries Ltd. in the Siltara Industrial region, Raipur, from 21st to 23rd Aug. 2024, as part of the **IICC.** The 3rd Semester students participated in this visit, which was aimed at enhancing practical learning and understanding of the steel industry. During the visit, students attended a one-hour session on the Steel Industry in India and the contribution of M/S Javaswal Neco Industries Ltd. in producing high-quality grades of alloy steels for the automotive and railway sectors. Following the presentation, students toured the Blast Furnace Division, Steel Melt Shop (SMS-1), and Refractory Division. The visit allowed students to explore the operations of an integrated steel factory and witness cutting-edge equipment in action, offering them invaluable insights into real-world industrial processes.

Expert Lecture on Smart Microelectrode Patch for Accelerated Wound Healing



Department of Biomedical Engineering (BME), NIT Raipur organized an expert lecture on Smart Microelectrode Patch for Accelerated Wound Healing delivered by Dr. Debasish Maji, Associate Professor, VIT University on 12th Sept. 2024. Dr. Maji is also affiliated with

TIFAC Core (VIT Chapter) and INFAB Semiconductor Pvt. Ltd. The session focused on the advancements in wound care management, particularly the development of smart bandages using novel wound healing techniques. Dr. Maji emphasized the role of Electrical Stimulation (ES) in promoting faster wound closure which mimics the body's natural electric field at the wound site, enhancing the healing process.

Expert Lecture on Power BI and its Use Cases

Department of Information Technology (IT), NIT Raipur organized an Industry Expert Lecture on Power BI and its Use Cases on 21st Aug. 2024, under the IICC. Ms. Nikhitha Bhandari, Software Engineer, Schlumberger India Technology Centre Private Limited, Pune, was the guest speaker for the session, which was held online. The event was coordinated by Dr. G. P. Gupta, Faculty(I/C), IICC Cell, IT. During the lecture, Ms. Bhandari explained the fundamental concepts of Power BI and its practical applications across various industries

Expert Talk on Geotourism in the Uttarakhand Himalaya



NIT Raipur organized an expert lecture on the topic Geotourism in the Uttarakhand Himalaya on 8th Jul. 2024. The session was delivered by Dr. Sandeep Singh, Professor, Department of Earth Science, IIT Roorkee. The event was conducted by the Department of Applied Geology (DAG). Dr. Singh focused on the scope and development of geotourism in the Uttarakhand Himalaya. The lecture was attended by students, research scholars, and faculty members from DAG and CE, contributing to an insightful discussion on the potential and challenges of geotourism in the region.

Expert Lecture on Your Future in Power Electronics

Department of Electrical Engineering, NIT Raipur, organized an Industrial Lecture Session on 8th Aug. 2024, on the topic Your Future in Power Electronics: Shaping the World through EV, Aerospace, and Renewables. Dr.

Sandeep Madishetti, *Lead Engineer, EATON, Singapore*, was the *Guest speaker* for the session.



During the lecture, **Dr. Madishetti** discussed new challenges in electric vehicle technology, such as decentralization, renewable energy integration, and vehicle-to-grid interface. He also delved into high-power density converters and smart energy storage functionality, including smart inverters, for improving grid reliability and reducing outages. The event was highly interactive, and both the speaker and participants engaged throughout the session.

Industrial-Expert Lectures to Bridge Academia and Industry



Department of Mathematics, NIT Raipur hosted **Industrial-Expert lectures** on campus on 8th & 9th Aug. 2024. The event aimed to promote critical thinking among students and bridge the gap between academic learning and industrial applications. The first lecture, titled **Mathematics in the Industry**, was delivered by **Mr. Archit Ojha**, *Product Manager, NucleusTeq Inc.*, *Phoenix, Arizona*, on 8th Aug. 2024. **Mr. Ojha's** talk offered an insightful overview of the critical role mathematical principles play in real-world industrial applications. He highlighted the use of mathematical models in solving industry challenges, optimizing processes, and discussed emerging fields like AI and advanced manufacturing, encouraging students to explore diverse career paths.



The second day of the event featured **Dr. Jalaj Kumar Upadhaya**, Assistant Professor, Rutgers University, USA, and Former Senior Researcher, Apple's Privacy Team. She delivered an insightful lecture on **Recent Advances in Differentially Private Continual Observation**. He concluded by highlighting research and collaboration opportunities.

Industry-Expert Lecture on Advanced Aluminium Alloys



Department of Metallurgical and Materials Engineering (MME), NIT Raipur organised an Industry-Expert Lecture on Advanced Aluminium Alloys delivered by Mr. Anirban Giri, Lead Metallurgist, Vedanta Industries Ltd., Jharsuguda, Odisha on 12th Aug. 2024. The purpose of this Industry-Expert Lecture is to prepare MME undergraduate students with scope and opportunities in metallurgical field, particularly in Aluminium Industry. Mr. Giri shared insights with attendees to help them better grasp of latest Aluminium production technologies and their challenges. In addition, he has also discussed career opportunities in Aluminium industries for fresh graduate students in top brass industries like Vedanta Ltd.

Industrial Visit to IAST Software Solution



Department of Information Technology (IT), NIT Raipur organized an industrial visit on 9th Aug. 2024 for BTech (IT) 3rd Semester students to visit IAST Software Solutions Pvt. Ltd, Durg (C.G.). This industrial visit has been organized as per the instructions of the IICC Cell. 30 students of B.Tech.(IT) 3rd Semester along with the Dr. G. P. Gupta, Faculty(I/C), IICC Cell, IT and three Ph.D. Research Scholars, named as Mr. Arun Kr. Dey, Mr. Upendra Chaurasiya and Ms. Vishakha Shukla, visited the IAST Software Solution Pvt. Ltd, Kadam Plaza, Durg (C.G.).

Industrial Visit at CIPET



Department of Mechanical Engineering (ME), NIT Raipur organized an industrial visit, under **IICC** for the 5th Semester students at the **Central Institute of Plastics Engineering & Technology (CIPET)**. This visit provided students with practical experience and insights into the workings of the plastics engineering and technology industries.

Infrastructural Development

Foundation Stone for a new G+6 Building



The foundation stone for a **New G+6 building**, named **Academic Annex-I**, was ceremoniously laid on 7th Aug. 2024 at **NIT Raipur** by **Dr. Suresh Haware**, *Chairperson*, *BoG*, *NIT Raipur*, in the presence of **Dr. N.V. Ramana Rao**, *Director*, *NIT Raipur* and **Dr. R. K. Tripathi**, *Dean (P&D)*, *NIT Raipur*.

The building will be constructed on the NIT Raipur campus in place of the Unit Operation Lab and will be situated adjacent to the existing Academic Building. This seven-storey building will be constructed by the Central Public Works Department (CPWD) Raipur with new facilities spanning over a total floor area of 6,387 square meters, significantly enhancing the infrastructure to support academic activities for students. The foundation stone laying ceremony was attended by all the Deans, Dr. N. D. Londhe, *In-charge Registrar*, Dr. L. K. Yadu & Dr. A. V. Ahirwar, *Associate Deans (P&D)*, Mr. Pawan Kataria, *Assistant Registrar (P&D)*, faculty and

staff of the Institute. **Shri. Ritesh Kumar Agrawal**, *Executive Engineer (Civil)*, *CPWD Raipur*, **Ar. Pushpraj Kashyap**, *Architect*, *CPWD Raipur* and other Officials from *CPWD Raipur* also registered their presence during the foundation stone laying ceremony.

MOUs

NIT Raipur and NITTTR



NIT Raipur and the National Institute of Technical Teachers' Training and Research (NITTTR), Bhopal, Madhya Pradesh, signed a Memorandum of Understanding (MoU) on 5th Sept. 2024. The MoU was signed by Dr. (Prof.) N. V. Ramana Rao, Director, NIT Raipur, and Dr. C. C. Tripathy, Director, NITTTR Bhopal, in the presence of Dr. Parag Dubey, Professor, NITTTR Bhopal, Dr. S. Verma, Dean (Academics), Dr. P. Diwan, Dean (R&C), Dr. D. Sanyal, Dean (Faculty Welfare), and Dr. T. Meenpal, HoD, ECE, along with Dr. C. Sahu, Nodal Officer and Dr. A. Kumar, Nodal Officer and faculty members from both institutions. The primary objective of the MoU is to establish cooperation and collaboration between NIT Raipur and NITTTR Bhopal for advanced research in the areas of semiconductor packaging and OSAT.

NITRRFIE



NIT Raipur has established not-for-profit Technology Business Incubator Company named NIT Raipur Foundation for Innovation and Entrepreneurship' (NITRRFIE) to support and mentor the startups under the National Initiative for Developing and Harnessing Innovations (NIDHI) - Technology Business Incubator (TBI) Program of Department of Science and Technology (DST), Govt. of India. NIT Raipur's Foundation for Innovation & Entrepreneurship (NITRRFIE) and Chhattisgarh Biotechnology Promotion Society (CBPS) has signed an MoU to boost co-incubation initiatives for startups in Chhattisgarh.

The MoU was signed by Dr. N.V. Ramana Rao, Director, NIT Raipur, and Dr. Girish Chandel, Vice-Chancellor, Indira Gandhi Agricultural University, Raipur. NITRRFIE signed a Memorandum of Understanding (MoU) with IIHMF on 9th Aug. 2024 with the primary objective to support incubation The MoU was signed by Dr. Samir Bajpai, Board Director, NITRRFIE and Dr. Anubhav Rawat, Board Director, IIHMF, in the presence of Dr. N. V. Ramana Rao, Director, NIT Raipur, and Dr. Animesh Ojha, Professor, MNNIT Allahabad, along with Dr. R.K. Tripathi, Dean (P&D), NIT Raipur, Dr. Anuj Shukla, Faculty In-Charge, Incubation Cell, NIT Raipur and Interim CEO, NITRRFIE and Mr. Pawan Raipur and Interim Kataria, Assistant Registrar, NIT Manager, NITRRFIE.

of FY 2024the quarter In second 25, NITRRFIE signed Memoranda of **Understanding** the Incubation Centers: IIM (MoUs) with Innovation Park (IIMCIP), represented by Dr. Subhranshu Sanval, CEO, IIMCIP on 12th Jul. 2024; KIIT-Technology **Business Incubator** (KIIT-TBI), represented by Dr. Mrutyunjay Suar, CEO, KIIT-TBI on 16th Jul. 2024; and Innovation & Incubation Hub MNNIT Foundation (IIHMF), represented by Dr. Anubhav Rawat, Board Director, IIHMF on 09th Aug. 2024. Under the scope of the MoUs, the incubation centers have committed to fostering cooperation in innovation, entrepreneurship, and incubation activities. The MoUs were signed by Dr. Samir **Bajpai**, Board Director, NITRRFIE, in the presence of **Dr. N**. V. Ramana Rao, Director, NIT Raipur, Dr. Anuj K. Shukla, Faculty In-Charge, Incubation Cell, NIT Raipur & CEO (Interim), NITRRFIE and Mr. Pawan Kataria, Assistant Registrar, NIT Raipur & Manager (Interim), NITRRFIE.

NIT Raipur and CSIR-NGRI



NIT Raipur and **CSIR-NGRI**, Hyderabad signed an MoU in the fields of geophysics, geology, and energy extraction from

natural resources on 27th Jun. 2024, in the presence of **Prof. N. V. Ramana Rao**, *Director*, *NIT Raipur*, and **Dr. Prakash Kumar**, *Director*, *CSIR-NGRI*. This MoU focuses on collaborative research and both institutions will pursue joint research programs, provide consultancy services, and establish guidelines for intellectual property sharing **Dr. D.C. Jhariya**, *HoD*, *DAG* and **Dr. Sachin Jain**, *Professor*, *EE* will coordinate the collaborative efforts from **NIT Raipur**.

Academic Activities

FDP on Data Science and its Application



Department of Computer Science & Engineering (CSE), NIT Raipur conducted an online Faculty Development Program on Data Science and its Application in collaboration with E&ICT Academy, NIT Warangal from 15th to 26th Jun. 2024. The coordinators of this program were Dr. Akanksha Sharaff, Assistant Professor, CSE, NIT Raipur and Dr. Sanjaya Kumar Panda, Professor, NIT Warangal.

This FDP provided participants with a comprehensive understanding of **Data science**, covering topics such as **Python in data science**, **Statistical Foundations**, **Machine learning techniques**, **Data visualization**, and **Ethical issues** which featured eminent experts and alumni from **IITs** and **NITs**.

5-Day Workshop on Finite Element Analysis

Department of Civil Engineering (CE), NIT Raipur in association with ISHRAE (The Indian Society of Heating, Refrigerating and Air Conditioning Engineers) Raipur Sub Chapter and IGS Raipur Chapter inaugurated a 5-Day workshop on Finite Element Analysis. The workshop was be held from 18th to 22nd Jun. 2024. Dr. N. K. Samadhiya, *Professor, IIT Roorkee* graced the occasion as the *Chief Guest*. Dr. N. V. Ramana Rao, *Director, NIT Raipur* assumed the role of *Chief Patron*. The *Chairman* of the workshop was Dr. Shirish V. Deo, *HoD, CE*. The *Convenor* of the workshop was

Dr. G. D. Ramtekkar, Professor, CE. The workshop was being coordinated under the guidance of Dr. Alfia Bano, Assistant Professor, CE and Dr. Sukanta Das, Faculty, CE. During this, Dr. Samir Bajpai, Professor, CE, faculty members, scholars and participants were present. Dr. Rao kicked off with an insightful overview of Finite Element Analysis (FEA), discussing its merits, potential pitfalls, and its crucial role in engineering. Dr. Samadhiya shared nostalgic memories of his GEC-NIT Raipur days and connected past experiences to current FEA advancements. Dr. Ramtekkar outlined the workshop's scope and emphasized FEA's transformative impact with the quote that Finite element analysis has made good engineers better but at the same time has made bad engineers dangerous. Dr. R.K. Tripathi added a comprehensive explanation of FEA, and Dr. Alfia Bano concluded with a vote of thanks. Dr. Sandhya Birla, Associate Scientific Editor, Elsevier India, conducted a session on research writing, covering effective techniques, common pitfalls, selecting the right journal, and handling reviewers' comments.



Dr. S. Sanyal, *Professor, ME* was the *Chief Guest* of the valedictory Session, Dr. Samir Bajpai, Dr. Ramtekkar, Dr. Deo and Mr. Ravi Jaggi, *President, ISHARE* were present. Dr. Ramtekkar discoursed the softwares used and topics covered across various sessions. Dr. S. Sanyal presented the certificates to the attendees, which saw over 50 attendees from across the country. Dr. Deo stressed hands-on experience and encouraged participants to continue validating and building sustainable solutions. Mr. Jaggi thanked the organizers and urged practical learning. Dr. S. Sanyal praised the

participants' dedication, noted that the workshop only scratched the surface, and advised breaking complex problems into manageable parts. The workshop ended successfully with a vote of thanks by **Dr. Alfia Bano**.

STTP on Quantum Computing and its Application



Department of Information Technology (IT), NIT Raipur inaugurated a 5-days online Short-Term Training Program (STTP) on Quantum Computing and its Applications: Modern Approaches and Practices on 24th Jun. 2024.

Dr. Sanjay Kumar, HoD, IT consented to be the Co-Patron of the event. The program coordinators were Dr. Rakesh Tripathi, Associate Professor, IT and Dr. Chandrasekhar Jatoth, Assistant Professor, IT. The inaugural program featured Chief Guest Prof. Lalit Kumar Awasthi, Vice Chancellor, Sardar Patel University, Mandi (H.P.), who highlighted quantum computing's revolutionary impact on cryptography, drug discovery, optimization, and AI. Prof. Awasthi discussed progress driven by tech giants and Indian startups such as QNu Labs and BosonQ Psi. The workshop explored quantum computing principles and its transformative potential over the next five days.

The *coordinators* extended their heartfelt gratitude to **Prof.** Shirish Verma, *Dean (Academics)*, and **Prof. Prabhat** Diwan, *Dean (R&C)*, for their support and approval for the STTP. The STTP featured 24 lectures by 11 renowned speakers, experts in their fields. These speakers, from various backgrounds, shared valuable insights, enhancing the program's educational value.

Workshop on Electric Vehicle Technology and Charging Infrastructure



Department of Electrical Engineering (EE), NIT Raipur, inaugurated a SERB sponsored High-End Workshop (Karyashala) on Emerging Trends on Electrical Vehicle Technology and Charging Station Infrastructure. The workshop, held from 1st to 6th Jul. 2024 focused on electric vehicles, charging infrastructure, and related technologies. Dr. N. V. Ramana Rao, Director, NIT Raipur was the Patron, with Dr. Anamika Yadav, HoD, EE and Dr. Lalit Kumar **Sahu**, Assistant Professor, EE as Coordinators. The inaugural session featured **Dr. Prabhat Diwan**, Dean (R&C) as Chief Guest and Dr. Shubhrata Gupta, Professor, EE as Guest of Honor. Dr. Gupta highlighted electric vehicles' potential for sustainable transport, while Dr. Diwan discussed trends like Vehicle to Grid (V2G) and Vehicle to Home (V2H). The first day included sessions on battery health management by Dr. Saurabh Saxena, Multi-Spot EV Charging Stations by Dr. Shailendra Kumar, EV trends in India by Dr. Allemshetty Hemchander, and real-time EV control mechanisms by Dr. Manish Barwar. Day two featured Dr. Shailendra Jain discussing Hydrogen Fuel Cell propulsion and advanced EV technologies, followed by Mr. Yugal Kishore's hands-on session on DC/DC converters. The workshop offered valuable insights and practical experience, enhancing participants' understanding of electric vehicles.

Cricket Premier League NIT Raipur

Sports Department, NIT Raipur organised the Cricket Premier League (CPL)'24 at Institute under the Fit India Campaign. The league ran from 1st Jun. to 6th Jul. 2024 featuring 10 matches. The final, held on 6th Jul. 2024 saw NIT Strikers defeat NIT Royals by 14 runs, with scores of 162 and 148, respectively. The Chief Guest was Dr. Manoj Pradhan, Professor, DME with Dr. Nitin Jain, Professor, ME and Dr. Narendra D. Londhe, Professor, EE were also in attendance. Dr. Rajesh Doria, Assistant Professor, IT was named Man of the Match for scoring 62 runs. Dr. Rajesh Chaudhary, won Best Batsman, Dr. Ashish Aswal received Best Bowler, and Dr. S. Varma Siruvuri, Assistant Professor, ME was named Man of the Series.

Bootcamp on Coding and Robotics



Department of Computer Science & Engineering (CSE), in collaboration with the Continuing Education Cell (CEC),

NIT Raipur conducted a Bootcamp on Coding and Robotics from 6th to 9th Jul., 2024. The four-day event was coordinated by **Dr. Pradeep Singh**, *HoD*, *CSE* and **Dr. Deepak Singh**, *Assistant Professor*, *CSE*. Students were provided with kits to conduct various experiments during the event. Day 1 of the bootcamp covered **Introduction to Arduino and Robotics**, including robotics applications, Arduino features, and basic electronics.

Day 2 focused on **Introduction to Programming with Arduino**, teaching variables, loops, conditionals, and functions. Day 3 involved building obstacle avoidance, Bluetooth-controlled, and line-following robots, including assembly and coding.

On Day 4, participants continued with robot building, troubleshooting, and showcasing projects. The bootcamp aimed to enhance practical skills in coding and robotics, with 15 participants receiving certificates on the final day.

SERB Sponsored Workshop on Semiconductor Devices



Department of Electronics & Communication Engineering (ECE), NIT Raipur organized a One-Week High-end **SERB** sponsored bv workshop on Semiconductor Devices: A Practical Approach to VLSI from 10th to 16th Jul. 2024. **Dr. N.V. Ramana Rao**, *Director*, NIT Raipur served as the Chief Patron while Dr. Shrish Verma, Dean (Academics), Dr. Prabhat Diwan, Dean (R&C) and **Dr. Shubhojit Ghosh**, Chairman, CEC were the other patrons. Chairman for the workshop was Dr. Toshanlal Meenpal, HoD, ECE. The Workshop coordinators were Dr. G.P.S.C. Mishra, *Professor*, ECE and Dr. Ashish Kumar, Assistant Professor, ECE.

The inaugural ceremony for the workshop was held on 10th Jul., featuring *Chief Guest* **Dr. Rao** and *Guest of Honor* **Dr. Samrat L. Sabat**, *University of Hyderabad*. **Dr. Shrish Verma**, **Dr. D. Sanyal**, *Dean (FW)*, **Dr. Samir Bajpai**, *Head*, *CDC*, **Dr. B. Acharya**, *HoD (I/C)*, *ECE*, faculty members, scholars, participants were present in this event. **Dr. Verma** reflected on the department's evolution from GEC to NIT in 2005 and the ECE Department's achievements despite limited

resources and outlined the workshop's objectives and learning opportunities. **Dr. Rao** discussed semiconductor applications in solar and battery panels, emphasizing the field's bright future in India. **Dr. Samrat** highlighted the need for skilled designers, linking devices, circuits, and systems, and praised the Indian government's investment in semiconductors. **Dr. Acharya** concluded with a vote of thanks.

The week-long workshop introduced participants to semiconductor devices, VLSI design, and their practical applications through hands-on experience and discussions. Dr. T. Meenpal's valedictory speech encouraged participants to apply their new knowledge to research and professional projects. Dr. Shubhojit Ghosh highlighted the workshop's significance, noting the competitive SERB sponsorship process where only 52 out of 500 nationwide applications were selected. Remarkably, 4 of these were from NIT Raipur, the institute's exceptional capability reflecting semiconductor and VLSI technologies. Dr. P. Diwan emphasized its role in advancing semiconductor expertise and encouraging continued innovation. The event concluded with a felicitation ceremony for 25 participants, with speakers from DRDO, IIT Jodhpur, IIT Roorkee, and CSIR CEERI Pilani sharing their expertise Dr. Ashish Kumar concluded the session with a heartfelt vote of thanks.

Expert Lecture on Artificial Intelligence and Data Science



Department of Computer Application (MCA), NIT Raipur organized an Expert Lecture titled Artificial Intelligence and Data Science on 13th Jul. 2024. The event was honored by the presence of Chief Guest Dr. Prabhat Diwan, Dean (R&C), Special Guest and Speaker Dr. T.V. Vijay Kumar, Professor & Dean, School of Engineering, JNU, Delhi. The organizers of the event were Dr. Priyanka Tripathi, HoD, MCA & Dr. H. Bikrol, Professor, MCA. The aim of the event was to provide insights into the latest developments in Artificial Intelligence and Data Science.

Dr. Prabhat Diwan discussed the significant impact that AI is expected to have in the 2030s, highlighting increased

automation and productivity, personalized experiences, advancements in healthcare, and workforce transformation. **Dr. T.V. Vijay Kumar** said that our current era as the fourth industrial revolution with AI and IoT and differentiated between strong and weak AI, discussed initial expectations of AI replicating human behavior, and warned that AI might reduce humans' capability to perform simple tasks. **Dr. Kumar** discussed NITI Aayog's AI policies for healthcare, agriculture, and education, while explaining the stages of data science and highlighted that the ultimate goal is to achieve wisdom from knowledge, with a focus on high ROI. The event concluded with a vote of thanks by **Dr. Dibakar Saha**, Assistant Professor, MCA.

5-day STTP on Holistic Approach to Design Hospitals



Department of Architecture and Planning (DAP), NIT Raipur inaugurated a 5-day Online Short-Term Training Program (STTP) on Holistic Approach to Design Hospitals **2024** on 22nd Jul. 2024. The event was graced by the presence of Chief Guest Dr. N. V. Ramana Rao, Director, NIT Raipur, Guest of Honor was Dr. Prabhat Diwan, Dean (R&C). Faculty members, participants, and students were also present. **Dr. Abir Bandopadhyay**, *HoD*, *DAP* served as the convener of this 5-day program, while Dr. Himanshu Poptani, Assistant Professor, DAP and Dr. Shruti S. Nagdeve, Assistant Professor, DAP acted as Coordinators. Dr. Himanshu highlighted the challenges faced by patients and how role of architects and planners can become pivotal in designing the hospitals. **Dr. Abir** described hospitals not only as places to keep patients but as centres of hope and healing emphasizing that hospitals act as catalysts for innovative environments for better healthcare. Dr. Prabhat stated that once a hospital gains name and fame, the number of patients increases, ensuring smooth patient flow and reducing waiting times, considering the high population density. Dr. Rao underscored the importance of a holistic environment.

The valedictory ceremony was organised on 26th Jul. 2024. The *Chief guest* for this event was **Dr. Debashis Sanyal**, *Dean* (FW), NIT Raipur. **Dr. Nagdeve** highlighted about the

interactive sessions, detailed presentations, and practical insights that participants gained regarding the design and planning of hospitals. Keynote speakers for this STTP included Dr. Anil Diwan, Dean (Research) & Professor at SPA, New Delhi, Dr. Poonam Diwan, Rtd. Additional Commissioner (Landscape), DDA, Mr. Sandal Kapoor, Architect & Faculty member, SPA, New Delhi, and Mr. Jayant Samal, MEP Consultant Engineer. These experts shared their extensive knowledge on classification, norms & disaster management, planning & designing of hospitals, specialty hospitals & facilities management, engineering services in hospitals, and the future of trauma care & hospital design. Dr. Sanyal emphasized the importance of such training programs in enhancing the skill sets of professionals and students alike. Dr. Anil Diwan proposed the idea of NIT Raipur engaging in interdisciplinary research and introducing specialized courses that integrate architecture, healthcare, and engineering disciplines. Dr. Diwan's suggestion highlighted the need for collaborative efforts to foster innovation and excellence in hospital design and healthcare solutions. The ceremony concluded with a vote of thanks presented by Dr. Himanshu Poptani. Participants from various regions and different sections of the country participated in this five-day long online program and were provided e-certificates.

SERB Sponsored Workshop on Reinventing Wireless Communication



Department of Electronics and Communication Engineering (ECE), NIT Raipur organised a high-end workshop, Karyashala sponsored by the Science and Engineering Research Board (SERB). The event, titled Reinventing Wireless Communication: Data-Driven Signal Processing for 6G Networks, spanned from 24th Jul. 2024 to 30th Jul. 2024. The workshop was graced by distinguished patrons, including Prof. N.V. Ramana Rao, Director, NIT Raipur, Prof. Sibi Raj B Pillai, Faculty, EE, IIT Bombay, Prof. Shrish Verma, Dean (Academics), Dr. D. Sanyal, Dean (FW), and Dr. Toshan Meenpal, HoD, ECE. The workshop coordinators, Dr. Siddharth Deshmukh, Associate Professor, ECE, and Dr. Saikat Majumder,

Assistant Professor, ECE, have meticulously organized this event.

The inaugural ceremony took place on 24th Jul. 2024. **Dr. Meenpal** welcomed all the guests, faculty members, and participants. **Prof. Verma** provided an insightful overview of the workshop's significance. **Prof. Rao** expressed his gratitude towards the participants, coordinators, and guests for their contributions to the event. The ceremony concluded with **Dr. Majumder** delivering a vote of thanks. Throughout this workshop, academicians from premier institutes such as IITs, NITs, and foreign universities, along with experts from the telecom industry, including **C-DOT** and **Nokia Bell Labs**, delivered lectures in the more than 20 sessions. The participants engaged in insightful talks, discussions, and hands-on sessions focusing on recent AI-applied signal processing trends in 6G networks and their potential use-cases.

The valedictory session was organised on 30th Jul. 2024. **Dr. Meenpal**, said that the government is planning for 6G and India wants to be a leader in this field and stated that the event was very informative and provided knowledge about this field. **Dr. Acharya** explained how everything was done manually earlier as the transistors were huge but nowadays technology is advanced as we are entering into the 6G era and advised the students to apply this knowledge for further research work. **Dr. Ghosh** shared insights on the workshop and efforts behind it. The event concluded with certificate distribution and vote of thanks by **Dr. Deshmukh**.

Awareness Session on Organ Donation and Basic Life Support



Department of Electrical Engineering (EE), Department of Computer Applications (MCA), Department of Information Technology (IT) & Dean Faculty Welfare (FW) along with SAHYOG - The Mentorship club, NIT Raipur organized an awareness session regarding Organ Donation and Basic Life Support on 2nd Aug. 2024. The event was graced by the presence of Chief Guest Dr. R.K. Tripathi, Director (I/C), NIT Raipur and Guest of Honor Dr. D. Sanyal, Dean (FW). Dr. S.L. Sinha, HoD, ME, Dr. Anamika Yadav, HoD, EE, Dr. Priyanka Tripathi, HoD, MCA, Mrs. Jyoti Rao, Mrs. Jayshree Dekhne, Core

Members, Aashirwad Social Group along with faculty members and students attended the event. Ms. Hemlata Mishra, Principal, and Ms. Vandana, Faculty, N.A.B. Drishtibadhit Balika Purv Madhymik Vidyalaya were also present, along with keynote speakers Dr. Ajit Kumar Mishra and Dr. Santosh Kumar Mishra from Ramkrishna Care Hospital and Mr. Ravindra Singh Shastri from Sumit Foundation. The event was coordinated by Dr Ashish Kumar Dash, Assistant Professor, DME and Dr. Mridu Sahu, Assistant Professor, IT.

Dr. Tripathi highlighted that in Hindu mythology, *Mahrishi* Dadhichi's selfless act and stressed the importance of having individuals today who can embody such self-sacrifice to drive societal progress. Dr. D. Sanyal mentioned that as we have many people at NIT Raipur, it is our duty to raise awareness among as many individuals as possible. Dr. S. L. Sinha said after death, we can continue to support others by donating our organs, turning our legacy into one of compassion. Dr. Ajit highlighted that organ donation lets people live on through their gifts, as one donor can save up to eight lives and mentioned that excessive alcohol use can lead to organ disease. Dr. Santosh explained how non-medical individuals can save lives by outlining safety measures for both responsive and unresponsive people. He demonstrated CPR live, showing the correct technique for chest compressions and rescue breaths. Mr. Ravindra addressed how to manage organ transplants despite financial constraints and emphasized that organ donation is essential for saving many lives. The event concluded with active participation of students as well as faculty members.

Awareness Workshop on Energy Conservation



NIT Raipur in collaboration with IWRS Student Chapter, Bureau of Energy Efficiency and Chhattisgarh State Renewable Energy Development Agency (CREDA) hosted an awareness workshop titled Energy Conservation: Saving the Planet for Future Generation on 13th Aug. 2024. The event was graced by the presence of Dr. Ishtiyaq Ahmad, Faculty Advisor, IWRS Student Chapter, Mr. R. S. Bhakuni, SE, CREDA, Mr. Aditya Baghel and Mr. Akash Sharma, AE, CREDA and Dr. Priyanka Pachauri Mishra, Project Coordinator, CREDA. The workshop aimed to raise

awareness about energy conservation, inspiring participants to adopt sustainable practices and innovate in energy management.

Mr. Bhakuni highlighted CREDA's significant achievements, such as the installation of 1,60,000 solar energy pumps and over 30,000 drinking water sources and emphasised the principle - Energy saved is Energy produced and discussed the importance of energy conservation at home. Mr. Akash discussed energy-efficient technologies and practices, emphasising the critical need for energy conservation and the adoption of efficient equipment. Dr. Priyanka provided an indepth look at CREDA's significant contributions to energy conservation and sustainability and elaborated on CREDA's work in solar energy, agriculture, and energy efficiency, discussing climate change, global targets, and Mission LIFE. She covered the Sustainable Development Goals, the Energy Conservation Act of 2001, and CREDA's programs like PAT, MuDSM, and AgDSM, emphasizing the role of public education in sustainability. The workshop concluded with an on-the-spot quiz competition, where winners were felicitated for their performance. Following this, the prize distribution for the Digital Poster-making competition took place, with Vandana Singh receiving 3rd place, Yash Raj Sahu securing 2nd place, and Bhagvati Singh from GEC Raipur securing the 1st place. The event wrapped up with a vote of thanks.

Certificate course on Artificial Intelligence and Machine Learning Innovation in Geology and Water Resources



Department of Applied Geology (DAG), Department of Information Technology (IT) and Department of Civil Engineering (CE), NIT Raipur jointly concluded a certificate course on Artificial Intelligence and Machine Learning Innovation in Geology and Water Resources: From Theory to Practice, which ran from 17th to 31st Aug. 2024. The inaugural session was organised on 17th Aug. 2024, which was graced by the presence of *Chief Guest* Dr. N.V Ramana Rao, *Director*, *NIT Raipur*, *Guest of Honor* Dr.

Prabhat Diwan, Dean (R&C), Dr. Subhojit Ghosh, Chairman, CEC. The Course Coordinators were Dr. D.C. Jhariya, HoD, DAG, Dr. Mridu Sahu, Assistant Professor, IT and Dr. Chandan Singh, Assistant Professor, CE. Dr. Jhariya briefed the participants on how the course would benefit students by exploring the applications of AI and ML in geology and water resource management. Dr. Ghosh emphasised the importance of these tools in addressing global challenges and inspiring attendees to harness their potential for sustainable resource management. Dr. Diwan emphasised the Government of India's focus on AI/ML in seven key areas: Groundwater Modeling, Flood Prediction, Soil and Mineral Exploration, Water Quality Monitoring, Natural Disaster Management, Agricultural Water Management, and Climate Change Impact. Dr. Rao elaborated on the use of deep learning in predicting natural resources, water management, mineral exploration, and seismic activity and noted challenges like data quality and the need for integrating AI/ML with traditional geological methods. The event concluded with a vote of thanks from **Dr. Chandan Kumar**. The valedictory ceremony for the course was organized on 31st Aug. 2024. The event was graced by the presence of Dr. Nibin G. Tom, Director, Field Training Center-Raipur, Geological Survey of India (GSI) as Chief Guest, along with other esteemed guests, including Dr. Ghosh. Dr. Ghosh emphasised that the course significantly benefited students and professionals by enhancing their python programming skills. Dr. Tom highlighted GSI's initiative to share geoscientific data through the National Geoscientific Data Repository to promote academic research. He emphasized the importance of ethical practices in data science and predicted that the growth of AI and ML would create numerous job opportunities for students in the future. Key topics covered in the course included Introduction to Python Programming, Lists, Multidimensional Lists, and **Dictionary** Looping.

Based on the project submission and test results ten best trainees were awarded. The ceremony concluded with a feedback session, followed by a vote of thanks delivered by **Dr. Singh**.

Workshop on Real-Time Hands-On in Biosignal Acquisition and Processing using Advanced AI and ML Tools

Department of Biomedical Engineering (BME), NIT Raipur inaugurated the 5-day workshop on Real-Time Hands-On in Bio-signal Acquisition and Processing Using Advanced AI and ML Tools on 25th Aug. 2024. The program, specifically designed for faculty members from

nearby colleges, aimed to provide participants with knowledge and practical skills in the rapidly advancing fields of **Artificial Intelligence (AI) and Machine Learning (ML)** as applied to **Bio-Signal processing**. The programme was sponsored by **Anusandhan National Research Foundation** (Formerly SERB) **India**.



The Chief Guest, Dr. N. V. Ramana Rao, Director, NIT Raipur graced the inauguration ceremony with a speech on the Crucial Role AI and ML play in Revolutionising Healthcare technologies and Bio-signal Processing where he underlined the importance of technological developments in order to stay relevant in the fields of academia and research while taking ethical considerations into account and went into further detail the significance of AI and ML in various. The event also featured a special address by the Guest of Honour, Dr. D. Sanyal, Dean (FW), NIT Raipur, who highlighted the significance of such training programs in equipping educators with the latest tools and methodologies. The Program Coordinator, Dr. Bikesh Singh, Associate Professor, BME provided an overview of the workshop, outlining the key topics that will be covered over the course of the program. Participants engaged in a series of hands-on sessions focused on Bio-signal acquisition, Processing Techniques and Application of AI and ML tools. The ceremony concluded with a vote of thanks by *Program* Co-coordinator Dr. J. Satva Eswari, Assistant Professor, DBT. The workshop promised to be an enriching experience, equipping faculty members.

STTP on Advance Materials Testing and Characterisation Techniques



Department of Civil Engineering (CE) and Metallurgical and Materials Engineering (MME), NIT Raipur in association with UltraTech Cement Ltd., inaugurated a Five-

day Short-Term Training Program (STTP) on Advanced Materials Testing and Characterization Techniques from 9th to 13th Sept. 2024 which aimed to provide participants with a comprehensive understanding of modern materials testing methodologies such as Scanning Electron Microscopy (SEM), X-Ray Diffraction (XRD), and Spectroscopy, vital for fields like Engineering, Physical Sciences and Life Sciences. The Chief Patron and Chief Guest of the event was Prof. (Dr.) N.V. Ramana Rao, Director, NIT Raipur and Dr. **Prabhat Diwan**, *Dean* (R&C), served as the *Patron*, while the event was chaired by **Dr. Shirish V. Deo**, *HoD*, *CE* and **Dr.** Subhas Ganguly, HoD, MME. Dr. Alfia Bano, Assistant Professor, CE was the Convener, with Dr. Neha Gupta, Assistant Professor, MME and Dr. Vikas Kumar Vidyarthi, Assistant Professor, CE as Coordinators. Other Dignitaries includes Dr. Soumya Gangopadhyay, Associate Professor, IIT Bhilai and Mr. Raman Sharma, Regional Head, Technical Services, UltraTech Cement. Dr. Ganguly highlighted the historical importance of materials and how technological innovations have shifted the focus from material-driven technology to technology-driven materials and used the example of mobile battery technology, noting how energy storage times have been drastically reduced. Dr. Shirish emphasized the importance of materials testing and characterization in ensuring the quality and durability of concrete structures, which is akin to the quality control processes in manufacturing. Dr. Gangopadhyay delivered a lecture on the synthesis, characterization, and application of modern materials, adding valuable insights for both novice and experienced participants. **Prof. Rao** stressed that the rapid introduction of new materials requires precise testing and characterization to ensure their safety, durability, and suitability for various industries. Mr. Raman wished the participants success in their journey to mastering advanced materials testing techniques. The event concluded with a vote of thanks by Dr. Gupta. The valedictory ceremony of the event was organised on 13th Sept. 2024. The Chief Guest for this event was Dr. Debashis Sanyal, Dean (FW), Dr. Ganguly was the Guest of Honor in the event. Dr. Neha briefed about the workshop's activities over the five days including Advanced Materials Testing and Characterization **Techniques** Diffraction, such as X-Ray Bio-Nanocomposites, Correlative TEM-APT, **Electron** Microscopy, Material Testing for Civil Engineers, Spectroscopy Techniques, SEM and Design of experiments and Training on Data Analysis and Interpretation using Software Tools. The speakers for this STTP were Dr. Gangopadhyay, Dr. Jose Immanuel R, Assistant Professor, IIT Bhilai, Dr. Nithin, and Dr. Yagnesh Shadangi, Professor, IIT Bhilai, Dr. Prafull Pandey, Professor, IIT Gandhinagar,

Dr. Vidyarthi, Dr. Sruthi Neelam, Assistant Professor, MME, NIT Raipur, Dr. Neha, Dr. Srinivasu Gangi Setti, Assistant Professor, ME, NIT Raipur, Dr. Deependra Kumar Singh, Associate Professor, MME, NIT Raipur and Dr. Dharm Pal, Professor, NIT Raipur. Dr. Sanyal emphasized the importance of such training programs in enhancing the skill sets of professionals and students alike, preparing them to tackle the complex challenges in advancement in new materials. The ceremony concluded with a vote of thanks presented by Dr. Vidyarthi.

Seminar on Stress Management Through Value Education



Department of Humanities and Social Sciences (DHSS), NIT Raipur organized a Two-day seminar on Stress Management Through Value Education on the 10th and 11th Sep. 2024 in observance of World Suicide Prevention Day. The session featured Mr. Surendra Pal from Abhyoday Sansthan as the keynote speaker, with distinguished attendees including Dr. N.V. Ramana Rao, Director, NIT Raipur, and Dr. Samir Bajpai, HoD, DHSS. Dr. Heena Chawda, Faculty, DHSS served as the event Coordinator.

Dr. Heena emphasized value education as a key tool for managing stress, highlighting the role of understanding, confidence, and relationships in mental well-being. **Dr. Rao** encouraged students to seek counselling and emphasized value education's importance in stress management. **Mr. Pal** discussed the causes of depression, happiness, and education in resolving psychological issues. On Day 2, **Mr. Pal** captivated the audience with insights on human nature, comparing humans to atoms composed of mind, intellect, and soul. **Dr. Bajpai** highlighted the institute's value education course as a journey of self-awareness and personal growth. The seminar concluded with Q&A session, and a vote of thanks by **Dr. Chawda**.

Upcoming Events

Chhattisgarh Green Summit 2024

NIT Raipur and VIBGYOR (N.E. Foundation) announce the first Chhattisgarh Green Summit, to be held from 3rd to

5th Oct. 2024, at the **Pt. Deendaval Upadhyav Auditorium**, Raipur. The summit, a precursor to LokManthan 2024, aims to celebrate Chhattisgarh's rich heritage while promoting environmental practices rooted in indigenous traditions. The 2024 edition will bring together artists, thinkers, and activists to contribute to the idea of Rashtra, fostering unity and appreciation for Bharat's cultural and intellectual heritage. The Chhattisgarh Green Summit will highlight Chhattisgarh's natural and cultural heritage through seminars on key topics like forest policy, carbon credits, and ecotourism. In addition to the seminars, the Chhattisgarh Green Summit will showcase live loom demonstrations, traditional Chhattisgarhi cuisine, local melodies and dances. Attendees can participate in discussions, presentations, and cultural activities centred on the state's ecological and cultural heritage, promoting sustainability.

2nd International Conference on Artificial Intelligence, Computing Technologies, Internet of Things (IoT) and Data Analytics

Department of Information Technology (IT), NIT Raipur will be organizing the 2nd International Conference on Artificial Intelligence, Computing Technologies, Internet of Things (IoT) and Data Analytics (AICTA 2024) from 15th to 17th Nov. 2024 with technical collaboration of MIND International Society. The coordinators of the event are Dr. Gyanendra Kumar Verma, Assistant Professor, IT, Dr. Rajesh Doriya, Assistant Professor, IT and Dr. Rekhram Janghel, Assistant Professor, IT. The conference aims to provide a platform for interdisciplinary collaborations and foster a vibrant community of researchers and practitioners in Artificial Intelligence, Computing and Data Analytics. It will feature keynote speakers, technical sessions, and panel discussions, covering a broad range of topics. The event will provide an excellent opportunity for participants to learn from each other, network, and collaborate on new research projects.

Certificate course on Cyber Physical System

Department of Computer Science & Engineering (CSE), NIT Raipur is organizing a 45-day Certificate Course on Foundations of Cyber Physical System from 6th Jan. to 7th Mar. 2025, in hybrid mode (both online and offline). The event will be coordinated by Dr. Manu Vardhan, Assistant Professor, CSE, Dr. Nitesh K. Bharadwaj, Assistant Professor, CSE and Dr. Madhukrishna Priyadarsini This course is designed to equip participants with the knowledge required to pursue a career in the field of cyber-physical

systems (CPS) and automation through AI. The program offers hands-on experience, covering core concepts such as CPS principles, real-time sensing, communication, attack detection, security frameworks, state estimation, and neural network-based modelling. In addition, the course explores Industrial IoT (IIoT) implementation and CPS configuration in IIoT environments. Designed for students and professionals, this course delves into the fusion of data and automation, preparing participants for a technical career in the field of CPS. More details about the course can be found on the official NIT Raipur website.

International Conference on Ambient Intelligence in Health Care (ICAIHC-2025)

Department of Computer Applications (MCA) will be organizing the International Conference on Ambient Intelligence in Health Care (ICAIHC-2025) on 10th and 11th Jan. 2025. The coordinators for the event are Dr. Priyanka Tripathi, HoD, MCA, Dr. Tripti Swarnkar, Professor, MCA Shri Harendra Bikrol, Associate Professor, MCA and Dr. Shyam Sundar, Associate Professor, MCA. The conference aims to explores the integration of machine learning and Intelligent Computing in healthcare. It will serve as a platform to showcase applications of intelligent techniques in including healthcare, e-healthcare, telemedicine, bioinformatics, and life support systems. Through interactive sessions and discussions, participants can forge connections that facilitate the translation of cutting-edge research into realworld applications, driving meaningful progress in healthcare innovation and delivery.

Research Frontier

Expert Lectures delivered by Institute Faculty/Staff

- Dr. Tripti Swarnkar, *Professor*, *MCA* delivered an expert lecture delivered on *Exploration of Machine Learning Tools* at National Conference on Artificial Intelligence and IoT for Sustainable Innovation (AIISI) organized by *Atal Bihari Vajpayee University Bilaspur*, *CG* on 25th Jun. 2024 (Offline mode).
- Dr. Tripti Swarnkar, *Professor*, *MCA* delivered an invited lecture in the online mode on *Generative AI and Healthcare* at FDP on Leveraging AI in Engineering: Innovations, Applications and Future Trends organised by *Centurian University of Technology & Management*, *Bhubaneswar*, *Odisha* on 26th Jun. 2024.
- **Dr. K. Jairam Naik**, Assistant Professor, CSE delivered an invited lecture on Role of Deep learning in IoT based Research: Examples & Case studies in the **Faculty Development Program on Deep Learning and IoT Driven Smart Applications** organised by MLR Institute of Technology Hyderabad, Telangana on 27th Jun. 2024.
- Dr. Nitesh K. Bharadwaj, Assistant Professor, CSE, delivered an expert lecture on Cyber Security Standards & Guidelines in Two-day State Level Awareness Workshop on e-Governance Standards & Guidelines (eGSG) organized by Centre for Development of Advanced Computing (C-DAC) and the Standardization Testing and Quality Certification (STQC) Directorate, under the aegis of the Ministry of Electronics & Information Technology, Government of India, at Hotel Babylon Capital, Raipur on 28th and 29th Jun. 2024.
- Dr. Nitesh K. Bharadwaj, Assistant Professor, CSE, delivered an expert lecture on Vulnerability Analysis & Penetration Testing in Five-day online workshop on CyberSecML: Exploring the Fusion of Security and Machine Learning under Indian Institute of Information Technology Kottayam and Rashtriya Raksha University, Gujarat held from 8th to 12th Jul. 2024.
- **Dr. Akanksha Sharaff**, Assistant Professor, CSE delivered invited lectures on Union by Rank and Path Compression, Flow Networks Problem, Graph Colouring Problem, N-Queen Problem, Hamiltonian Circuit Problem at **Swayam Course** organised by Chhattisgarh Swami Vivekanand Technical University, Raipur on 4th Aug. 2024.
- Dr. Nitesh K. Bharadwaj, Assistant Professor, CSE, delivered an expert lecture on Database and GUI Programming using Python certificate course in Artificial Intelligence & Machine Learning Innovations in Geology and Water Resources: From Theory to Practice (AIMILGWR-2024) at National Institute of Technology, Raipur held from 17th to 31st Aug. 2024.
- **Dr. Akanksha Sharaff**, Assistant Professor, CSE delivered an invited lecture on Deep Learning and its Real-world Case Studies at a **Faculty Development Program** from 24th to 29th Jun. 2024 organised by Symbiosis Institute of Technology, Pune.

Awards, Recognition, and Fellowship

• **Prof. P. Y. Dhekne**, Registrar, NIT Raipur has been appointed as a **Member**, R&D Board, Coal India Limited.

- Dr. Awanish Kumar, HoD, DBT, Dr. Govind P. Gupta, Assistant Professor, IT, Dr. Dilip Singh Sisodia Associate Professor, CSE, Dr. Rakesh Tripathi, Associate Professor, IT, Dr. Pratima Gupta, Professor, DBT, Dr. Pradeep Singh, HoD, CSE, Dr. Ayush Khare, Professor, DoP, Dr. Anamika Yadav, HoD, EE, Dr. Bikesh Kumar Singh, Associate Professor, BME, Dr. Prem Kumar Chaurasiya, Assistant Professor, ME, Dr. Lata Sheo Bachan Upadhyay, Professor, DBT, Dr. Mohan Kumar Pradhan, Associate Professor, ME, Dr. Sudip Kumar Sinha, Assistant Professor, MME, Dr. Sachin Jain, Professor, EE and Dr. Rajan Kumar, Assistant Professor, EE and have been featured in the prestigious list of World Ranking of Top 2% Scientists/Researchers released by the renowned Stanford University, USA for the year 2024.
- **Dr. Awanish Kumar**, Associate Professor & HoD, DBT recently shared his views on **Pharmaceutical Biotechnology's Impact on Healthcare Applications** in a renowned regional newspaper. The article highlights Pharmaceutical Biotechnology as a promising field, applying Biotechnology principles to develop drugs and emphasizes the need for an efficient and economical pharmaceutical system in India.
- Dr. Sanjeev Das, Associate Professor, MME, recently shared his views on Eco-Friendly Casting Technologies Revolutionizing the Aluminium Industry in a renowned newspaper. The article compares the eco-friendly Force Convection Technology with current energy-intensive casting processes, highlighting its potential to replace traditional methods and advancements made at NIT Raipur's laboratories.
- **Dr. Arindam Bit**, Associate Professor, BME recently shared his views on **Sustainable Innovation: Building a Thriving Ecosystem for Medical Devices** in a renowned regional newspaper. The article delves into how a multidisciplinary engineering approach, coupled with effective government policy intervention, can address India's healthcare crisis.
- **Dr. Anoop Kumar Tiwari**, *Associate Professor*, *DHSS* recently shared his insights on **Nurturing a Sustainable Nation through Education and NEP 2020** in a renowned regional newspaper. **Dr. Tiwari** discussed NEP 2020's positive impact on higher education, industries, and students but noted the need for improvement in enrollment of disadvantaged groups, community participation, and bridging the digital divide.
- Dr. Govardhan Bhatt, Assistant Professor, CE, recently shared his views on Augmentation of Youth in Nation through Holistic Education in the News Chronicles of Chhattisgarh. The article explores the urgency of revolutionizing education to fully uplift the youth and unlock their talents, ensuring the nation's progressive growth.
- Dr. (Mrs.) Aakansha Sharaff, Assistant Professor, CSE, was a Technical Session Chair at the 5th International Conference on Electrical and Electronics Engineering (ICEEE 2024), organised by Swinburne University of Technology, VIC 3122, Australia on 11th Sept. 2024.
- Dr. Monalisa Biswal Assistant Professor, EE was a Co-ordinator at the Workshop on Challenges in Work Life Balance of Women in Engineering (CWLBWIE 2024), organized by Institute of Electrical and Electronics Engineers Power Electronics Society Women in Engineering (IEEE PELS WIE) and the Department of Electrical Engineering, MANIT Bhopal on 21st Jul. 2024.
- Dr. Monalisa Biswal, Assistant Professor, EE was a Coordinator at the Ph.D Summer School on Power Electronic Converters Real Time Control and Applications (PECRTCA-2024), organized by the Institute of Electrical and Electronics Engineers Power Electronics Society (IEEE PELS), MP Section and Department of Electrical Engineering, MANIT Bhopal held from 20th to 24th Jul. 2024.

Patents

• Dr. Monalisa Biswal, Assistant Professor, EE, Mr. Fanidhar Dewangan, and Ms. Saniya Siddiqui have been awarded a patent titled A Method and System for High Impedance Arcing Faults (HIAFS) Detection by the Patent Office, Government of India on 8th Aug. 2024.

Sponsored Research Projects

• The project titled *Cyber Threat Intelligence based Advanced Persistent Threats Detection and Attribution System* by **Dr. G. P. Gupta**, *PI & Co-PI*, has been sanctioned by **C3iHub (IIT, Kanpur)**. The project is funded with an amount of Rs. 25,23,000/- for a period of 36 months.

Ph.D. Thesis Defended

• Mr. C. H. Kamesh Rao defended his Ph.D. thesis entitled *Investigation and Development of Multiple* Port Power Electronic Interface for Solar

Photovoltaic Application under the supervision of **Dr. Ramnarayan Patel**, Associate Professor, EE

- and **Dr. Lalit Kumar Sahu**, Assistant Professor, EE on 16th May 2024.
- Mr. Kshitij Upadhyay defended his Ph.D. thesis entitled *Study on Sources, Characteristics, and Fate of Microplastics in an Indian Urban Environment* under the supervision of **Dr. Samir Bajpai**, *Professor*, *CE* on 24th May 2024.
- Ms. Smitashree Swain defended her Ph.D. thesis entitled Assessment of Socio-Cultural Impact of Tourism on Host Community of Heritage Cities of Orissa under the supervision of Dr. Swasti Sthapak, Professor, DoA on 27th May 2024.
- Ms. Sonal Banchhor defended her Ph.D. thesis entitled Parametric Study on Properties of Alkali activated Slag and Fly ash Concrete under the supervision of Dr. Meena Murmu, Assistant Professor, CE and Dr. S.V. Deo, HoD, CE on 28th May 2024.
- Ms. Aruna Shukla defended her Ph.D. thesis entitled A Narratological Approach to the Select Novels of Kamala Markandaya under the supervision of Dr. Anoop Kumar Tiwari, Associate Professor, DHSS on 3rd Jun. 2024.
- Mr. Md. Moshabbir Alam defended his Ph.D. thesis entitled Gender, Identity and Religion among the Nat Women: An Epistemological Understanding under the supervision of Dr. Moksha Singh, Assistant Professor, DHSS on 4th Jun. 2024.
- Ms. Komal Kashyap defended her Ph.D. thesis entitled Facile fabrication of plant mediated nanomaterials for remediation of water under the supervision of Dr. (Mrs.) F Khan and Dr. Dakeshwar Verma, DoC on 10th Jun. 2024.
- Ms. Akanksha Vijay Agrawal defended her Ph.D. thesis entitled Anaerobic Digestion of Vegetable and Fruit Waste for Biofuel production under the supervision of Dr. P.K. Chaudhary, Professor, DCE and Dr. Prabir Ghosh, Associate Professor, DCE on 11th Jun. 2024.
- Ms. Tanushri Jaiswal defended her Ph.D. thesis entitled Modelling the impacts of Urban Land Use Change on Surface Temperature and Water Resource for future water sustainability in Lower Kharun Catchment, Chhattisgarh under the supervision of Dr. D. C. Jhariya, HoD, DAG on 14th Jun. 2024.
- Ms. Titikshya Mohapatra defended her Ph.D. thesis entitled Fluidized bed Fenton process for the remediation of dye-based wastewater under the supervision of Dr. Prabir Ghosh, Associate Professor, DCE on 21st Jun. 2024.

- Mr. Awagan Goyal Rameshrao defended his Ph.D. thesis entitled Hybrid Microgrid Protection under Contingency Scenarios and Communication Data Loss under the supervision of Dr. Ebha Koley, Associate Professor, EE and Dr. Subhojit Ghosh, Professor, EE on 21st Jun. 2024.
- Mr. Ashutosh Kumar successfully defended his PhD thesis entitled Enhancing Automated Exploration of Biomedical Named Entity Recognition using Deep Learning Techniques under the guidance of Dr. Akanksha Sharaff, Assistant Professor, CSE on 27th Jun. 2024.
- Mr. Muzaffar Khan defended his Ph.D. thesis entitled Application of Soft Computing techniques for Cardiovascular Risk identification using Photoplethysmogram under the supervision of Dr. B.K. Singh, Associate Professor, BME and Dr. Neelam Shobha Nirala, Assistant Professor, BME on 28th Jun. 2024.
- Mr. Shashank Singh defended his Ph.D. thesis entitled Design a Framework for Routing Schemes in Wireless Sensor Networks using Metaheuristic Approach under the supervision of Dr. Veena Anand, Assistant Professor, CSE and Dr. Sonal Yadav, Assistant Professor, CSE on 28th Jun. 2024.
- Mr. Madhu Orunganti defended his Ph.D thesis entitled Age Invariant Kinship Verification: Analysis and Solutions under the supervision of Dr. Toshan Meenpal, HoD, ECE and Dr. Saikat Majumder, Assistant Professor, ECE on 2nd Jul. 2024.
- Mr. Abinash Sahu defended his Ph.D. thesis entitled
 Mineralogical and geochemical studies of ultramafic
 rocks along Babina-Prithvipur transect,
 Bundelkhand craton, Central India under the
 supervision of Dr. N. Vishwakarma, Associate
 Professor, DAG on 8th Jul. 2024.
- Mr. Neeraj Sunheriya defended his Ph.D. thesis entitled Experimental and Numerical Investigation of Performance of Modified Simple Solar Water Heating Systems under the supervision of Dr. Satish Dewangan, Associate Professor, ME and Dr. Sanjay R. Thool, ME on 8th Jul. 2024.
- Ms. Bhawna Patel defended her Ph.D. thesis entitled
 Development of a Novel Model for Structural System
 Identification using the Roving and Distributed
 Computing Techniques under the supervision of Dr.
 U. K. Dewangan, Professor, CE on 10th Jul. 2024.
- Ms. Monalisa Satapathy defended her Ph.D. thesis entitled Bioremediation of Petroleum Refinery Effluent in Sequential MBBR System Inoculated with Mixed Microbial Consortia under the supervision of

- **Dr. J. Anand Kumar**, *Associate Professor*, *CE* on 11th Jul. 2024.
- Mr. Anuj Rohatgi defended his Ph.D. thesis entitled Study of broad-spectrum anti-biofilm agents against Enterobacteriaceae family: An alternative to antimicrobial therapy under the supervision of Dr. Pratima Gupta, Professor, DBT on 12th Jul. 2024.
- Mr. Manikant Panthi defended his Ph.D. thesis entitled Design of security schemes to protect power network from cyber-attack under the supervision of Dr. Tanmoy Kanti Das, Assistant Professor, MCA on 15th Jul. 2024.
- Mr. Pankaj Jain defended his Ph.D. thesis entitled
 Advance Machine Learning Techniques for Flow
 Prediction in Multi-exposure Laser Speckle Contrast
 Imaging under the supervision of Dr. Saurabh
 Gupta, Assistant Professor, BME on 18th Jul. 2024.
- Mr. Anoop Kant Shukla defended his Ph.D. thesis entitled Heavy metal load on adjoining sediments due to surface dumping of waste rock by open pit mines under the supervision of Dr. Manoj Pradhan, Professor, DME on 18th Jul. 2024.
- Ms. Neelam Agrawal defended her Ph.D. thesis entitled Development of Classification Techniques for Remote Sensing and GIS Data using Machine Learning under the supervision of Dr. Himanshu Govil, Assistant Professor, MCA on 19th Jul. 2024.
- Mr. Neeraj Kumar defended his Ph.D. thesis entitled Wear and Corrosion Behaviour of Aluminium Metal Matrix Composite Reinforced by B4C and MOS2 Particles under the supervision of Dr. Manoranjan Kumar Manoj, Assistant Professor, MME on 18th Jul. 2024.
- Mr. Appala Naidu K defended his Ph.D. thesis entitled Automatic Generation Control in Multi-Area Power System Incorporating Renewable Energy Sources Using Soft Computing Techniques under the supervision of Dr. Binod Shaw, Assistant Professor, EE on 24th Jul. 2024.
- Ms. Pratik Gopalrao Angaitkar defended her Ph.D. thesis entitled Towards the Design and Analysis of an Effective Framework for Protein Sequence Analysis using AI-Based Approaches under the supervision of Dr. Rekh Ram Janghel, Assistant Professor, IT and Dr. Tirath Ram Sahu, Assistant Professor, IT on 30th Jul. 2024.
- Mr. Jagdish Kumar Satyam defended his Ph.D. thesis entitled the *Electronic-structure* and thermoelectric properties of rare earth based half Heusler compounds under the supervision of Dr.

- **Sapan Mohan Saini**, *Professor*, *DoP* on 5th Aug. 2024.
- Mr. Jagdish Kumar Satyam defended his Ph.D. thesis entitled Electronic Structure and Thermoelectric Properties of Rare-Earth based Half Heusler compounds under the supervision of Dr. Sapan Mohan Saini, Professor, DoP on 5th Aug. 2024.
- Ms. Maanvi Bhatnagar defended her Ph.D. thesis entitled Artificial Intelligence based Protection Schemes for Power Transmission and Distribution System with Penetration of Renewable Energy Sources under the supervision of Dr. Anamika Yadav, HoD, EE and Dr. Aleena Swetapadma, EE on 7th Aug. 2024.
- Ms. Chinta Durga Prasad defended her Ph.D. thesis entitled Optimization Based Solutions for Event Identification in Modern Power Network under the supervision of Dr. Monalisa Biswal, Assistant Professor, EE on 7th Aug. 2024.
- Mr. Saikat Majumdar defended his Ph.D. thesis entitled Representation of Nation in Indian Diasporic Writings: A Critical Study of Selected Novels of Kamala Markandaya, Bharati Mukherjee and Jhumpa Lahiri under the supervision of Dr. Sandip Sarkar, Assistant Professor, DHSS on 20th Aug. 2024.
- Mr. Numeshwa R Kumar Sinha defended his Ph.D. thesis entitled *Highly Efficient Low-Cost Lead-Free Perovskite Solar Cells* under the supervision of Dr. Ayush Khare, *Professor*, *DoP* and Dr. Dhriti Sundar Ghosh, *DoP* on 23rd Aug. 2024.
- Mr. Sevak Ram Sahu defended his Ph.D. thesis entitled Effect of Time Delay in Dynamics and Stability of Ecological Systems: A Mathematical Modeling Study under the supervision of Dr. Sharada Nandan Raw, Associate Professor, DoM on 28th Aug. 2024.
- Ms. Ghogare Abhijeet Ganesh defended her Ph.D. thesis entitled *Numerical investigation of indoor comfort and contamination control* under the supervision of Dr. Shobha Lata Sinha, *Hod*, *ME* and Dr. Tikendra Nath Verma, *Professor*, *ME* on 28th Aug. 2024.
- Mr. Abhishek Sharma defended his Ph.D. thesis entitled *Synthesis and Characterization of Metal Oxide reinforced Silicone Elastomer Nanocomposite* under the supervision of Dr. S. P. Mahapatra, *Associate Professor*, *DoC* on 30th Aug. 2024.

Research Publications

- Dr. Akanksha Sharaff, Assistant Professor, CSE and Mr. Gyananjaya Tripathy, PhD Scholar received acceptance of a book chapter titled Hyperparameter elegance: fine-tuning text analysis with enhanced genetic algorithm hyperparameter landscape to be published in Knowledge and Information Systems.
- Mr. Naveen Chauhan, NIT Hamirpur, Mr. Divakar Yadav, Indira Gandhi National Open University, New Delhi, Dr. Gyanendra K. Verma, Assistant Professor, IT, NIT Raipur, Mr. Badal Soni, Professor, NIT Silchar, Mr. Jorge Morato Lara, Carlos III University, Madrid, Spain published a book titled Machine Learning, Image Processing, Network Security and Data Sciences in Communications in Computer and Information Science (CCIS, volume 2128) Springer. This book features the refereed proceedings of the 5th International Conference on Machine Learning, Image Processing, Network Security, and Data Sciences (MIND 2023), held in Hamirpur, India, from 21st to 22nd Dec. 2023.
- Dr. Tripti Swarnkar, *Professor*, *MCA* published a journal titled Genomic characterization and distribution of XDR Klebsiella pneumoniae ST15 carrying blaOXA-181 on ColKP3 plasmid from an ICH patient in eastern India: A global comparative analysis (1 Sep) in *Gene Reports* 36 (2024): 01978Elsevier.
- Dr. Arepalli Peda Gopi, Associate Professor, VNITSW, Dr. K. Jairam Naik, Assistant Professor, CSE and Dr. Jagan Amgoth, Professor, CSE, BVRIT have published a journal titled An IoT Based Water Quality Classification Framework for Aqua-Ponds Through Water and Environmental Variables Using CGTFN Model. The journal was published in the International Journal of Environmental Research, Springer Nature, 2024.
- Dr. Krishna Prasad Madasu, Associate Professor, DoM and Mr. Amit Kumar, Research Scholar, DoM received the acceptance of a book chapter titled Non-Newtonian fluid flow between Parallel Plates filled with an Anisotropic Porous Medium to be published in Archive of Mechanical Engineering.
- Dr. Krishna Prasad Madasu, Associate Professor, DoM and Mr. Amit Kumar, Research Scholar, DoM received the acceptance of a book chapter titled Annular generalized Couette flow of Immiscible Viscous fluids in an Anisotropic Morous medium to be published in Journal of the Brazilian Society of Mechanical Sciences and Engineering.

Students' Corner

- Ritwik Halder. Alumnus (DoA/2024) was awarded the Best Thesis Award 2024 by Mumbaibased Fold Design Studio. Ritwik's dissertation on **Designing** Portable Housing Modules for Community, Labourer was supervised by Dr. Vivek Agnihotri, Assistant Professor, DoA focused on designing costeffective, safe, and climate-
- responsive portable housing for labourers. The prototype aimed to improve living conditions and productivity.
- secured 1st position in the For the motion category and Ishita Tewari, 3rd Sem., MME secured 2nd position in the Against the motion category in the prestigious Hindi Debate Competition

organized by Paryavaran Urja Times in collaboration with the Press Club of Raipur and Rotary Club of Raipur East on 11th Jul. 2024, in observance of World Population Day. The debate focused on the theme India's Increasing Population- Disaster or Opportunity.

Club/Committee Activities

Aura: The Photography Exhibition by Click Club



Click Club- The Photography Club, NIT Raipur organized a special three-day exhibition titled Aura from 19th to 21st Aug. 2024 on occasion of World Photography Day which

showcased the creative talents of the club's members, offering a vibrant exploration of visual art and storytelling through photography. The inauguration ceremony took place in the presence of **Dr. A. B. Soni**, *Director (I/C)*, *NIT Raipur*, as the *Chief Guest.* **Dr. P. Y. Dhekne**, *Registrar*, **Dr. Manoj Pradhan**, *Professor*, *DME*, **Dr. Nitin Jain**, *Dean (SW)*, faculty members, and students were also present during the event. The event was organized under the guidance of **Dr. S. Sanyal**, *Faculty In-charge*, *Click Club*. The dignitaries, along with **Dr. Soni** inspected the exhibition. **Dr. Sanyal**, along with the members of the **Click Club** provided detailed insights into the various categories of

photographs on display. **Dr. Soni** commended the club members for their dedication and hard work in organizing such a visually captivating exhibition and lauded their efforts in bringing together such a diverse array of photographic art. The exhibition was not just a display of photographs, it was a platform for dialogue, inspiration, and creative exchange, leaving a lasting impression on all who attended.

Annual Photography Workshop by Click Club



Click Club, NIT Raipur organized a Two-Day Annual Photography Workshop on 14th and 15th Sep. 2024. The event aimed to impart theoretical and practical knowledge of photography to aspiring photographers. It was inaugurated by Dr. S. Sanyal, Faculty In-charge, Click Club. Dr. Sanyal, during the inauguration, reflected on the journey of Click Club. On first day of the workshop began with the screening of a video that showcased Click Club's work. The workshop's sponsor, Ayush Agrawal from Tulsi Enterprises, spoke about the significance of photography in today's social mediacentric world. Technicals about camera handling, colour theory, editing, lighting session, and videography session was organised. Day 2 of the workshop featured a special guest speaker, Dr. Dharmendra Singh Saini, Alumnus, NIT Raipur specializing in astro photography and long exposure. He discussed photography techniques and captivated the audience with his collection of landscape and microphotographs. A highlight was a star trail shot from Sirpur, which he explained in detail. The event concluded with a hands-on session and a photo walk, giving participants practical insights into photography.

Speaker Session on Startup Ecosystem by E-Cell

E-Cell, NIT Raipur, in collaboration with Startup Grind Raipur organised a speaker session focused on strengthening the startup ecosystem in the Institute which aimed to encourage and guide the students in contributing to the development of a robust startup environment. The keynote speaker at the event was Mr. Yash Agrawal, Founder, GimBooks. The speaker session was successfully conducted

under the guidance of **Dr. Chandrakant Thakur**, Faculty In-Charge, E-cell. **Mr. Yash** expressed his views that entrepreneurs must always be prepared for changing market conditions and technological advancements and suggested that flexibility and adaptability are essential for business success. He emphasized a customer-first approach, continuous learning and improvement, teamwork, and leadership as key factors in starting a successful startup.



Mr. Yash has streamlined GimBooks' business model and utilized digital marketing—social media, SEO, and email marketing—to attract customers. This event marked a significant step towards strengthening the startup ecosystem at NIT Raipur, providing students with new opportunities and guidance in the field of entrepreneurship.

Debate Competition by Go Green



Go Green-The Eco Social Committee, NIT Raipur hosted Hindi Debate Competition on 6th Jul.2024 on the theme Bharat ki Badhti Jansankhya- Aapada ya Avasar. The event aimed to foster critical thinking and dialogue among students. Several participants showcased their analytical and oratory skills, debating whether India's growing population is a crisis or an opportunity.

Essential session on Climate Change and Solar Energy by Go-Green Committee



Go-Green - The Eco Social Committee, NIT Raipur organized a session on Climate Change and Solar Energy

with Solar Man of India Prof. Chetan Singh Solanki, IIT Bombay on 21st Aug. 2024. The event was graced by the presence of Dr. Nitin Jain, Dean (SW), Dr. S. Sanyal, Professor, ME, faculty members, and students. The program was organized under the guidance of **Dr. D. C. Jhariya**, *HoD*, DAG, Dr. Govind P. Gupta, Assistant Professor, IT and Dr. Kabita Biswas Sharma, Assistant Professor, DoA. Dr. Solanki outlined the critical challenges posed by climate change, including increased floods, rising forest fires, and emphasized the urgency of limiting global warming to 1.5°C, highlighting that energy misuse is at the heart of these issues. Dr. Solanki introduced the AMG approach—Avoid, Minimize, Generate as a practical framework to address the energy crisis and urged reducing energy use by one-third, even from renewable sources, minimizing consumption through efficient appliances, and generating only a third of energy locally. The session concluded with a call to action, focusing on energy literacy, Wrinkle Day, and efforts to reduce electricity consumption. The programme ended with a vote of thanks by Dr. Gupta.

Green Ganesha: The Idol making Competition



Go Green-The Eco Social Committee, NIT Raipur organized a Green Ganesha: An Eco-Friendly Idol-making competition on 8th Sep. 2024, to commemorate Ganesh Chaturthi. The event was held under the supervision of Dr. D. C. Jhariya, HoD, DAG, Dr. Govind P. Gupta, Assistant Professor, IT, Dr. Kabita Biswas Sharma, Assistant Professor, DoA. The primary objective of the competition was to raise awareness about the environmental and health hazards caused by chemicals used in conventional Ganesha idols and to promote the use of natural earthen idols over those made from Plaster of Paris. Participants were provided with earthen soil, tools, and natural colours like turmeric and vermilion to create their eco-friendly idols.

I-Talk by I-Cell

I-Cell, NIT Raipur organised an I-Talk session titled Startup ecosystem in silicon and career trajectories post **NIT** on 6th Aug. 2024. The guest speaker was **Mr. Archit Ojha**, *Product Manager*, *NucleusTeq* and *an Alumnus*.



The event was graced by the presence of **Dr. Saurabh Gupta**, *Faculty In-Charge*, *I-Cell*. **Mr. Ojha** explained that he did things differently and shared his journey, highlighting his experiences and experiments that could offer valuable lessons. He encouraged students to explore options, build connections, and leverage market gaps for innovative ideas. Following, a small question and answer session.

Engineers' Day Quiz Contest by Interact and Sahyog



Interact Club in collaboration with Sahyog, the Mentorship Club, NIT Raipur organized a quiz contest on 15th Sep. 2024 on Engineers' Day. In the first round of the quiz, participants answered 15 questions, with the top 6 teams progressing to the final buzzer round. Anirudh Dubey and Oje Verma emerged as the winners, while Naman Bhatnagar and Aayush Agarwal secured the 2nd position. Rishabh Bhawnani and Sarthak Sharma bagged the 3rd spot.

Rally and Seminar by NCC



National Cadet Corps (NCC), NIT Raipur organised a Drug-Free India Rally followed by a seminar on Drug-Free India on 26th Jun. 2024 in honour of the International-day against Drug Abuse and illicit trafficking. The rally as well as the seminar was organised in collaboration with Dean (SW) office. The event was graced by the presence of Dr. N.V. Ramana Rao, Director, NIT Raipur, Dr. Nitin Jain, Dean

(SW), NIT Raipur, Dr. Neeraj Manhas, Faculty In-charge, NCC, Dr. Shrish Verma, Dean (Academics) and Dr. Samir Bajpai, Head, CDC, NIT Raipur. The Speaker for the event was Dr. Nishant Sahu, MD, Psychiatry. The seminar was hosted by Dr. Soumya Agrawal, Medical Officer. Scholars, students and faculty members were also present. Dr. Agrawal discussed Drug Abuse Day and its consequences. Dr. Rao emphasized raising awareness about drug addiction among youth and its societal impacts. Dr. Sahu highlighted the government's goal of a Drug-free India and covered reasons for drug use, such as peer pressure and depression and for prevention, he recommended rejecting drugs, seeking help, and spreading awareness.

Partition Horrors Remembrance Day



National Service Scheme (NSS) and Abhinay – The Dramatics Club, NIT Raipur celebrated Partition Horrors Remembrance Day on 14th Aug. 2024. On this occasion, a Poster making competition was organized by NSS Club and street play was performed by Abhinay Club. Dr. N.V. Ramana Rao, Director, NIT Raipur, Dr. Shrish Verma, Dean (Academics), Dr. Samir Bajpai, Head, CDC, Dr. Nitin Jain, Dean (SW), faculty members and students were present in the program. This program was organized under the guidance of Dr. Govardhan Bhatt, Faculty In-Charge, NSS and Abhinay Club. Dr. Rao inaugurated the poster exhibition. A street play titled Zahar Ka Ghada was performed by Abhinay. The pain of partition was expressed through this play by the members of Abhinay.

Celebration of Birth Anniversary of Munshi Premchand ji by Rajbhasha



Rajbhasha Samiti, NIT Raipur celebrated the birth anniversary of Munshi Premchand ji on 31st Jul. 2024. Dr. N. V. Ramana Rao, *Director*, *NIT Raipur*, was the *Chief*

guest at the event. Dr. B. K. Sahoo, HoD, DoP, Dr. Sadhana Agrawal, Professor, DoP, Dr. K. S. Ojha, Assistant *Professor*, *DoP* along with other faculty members and students were present during the event. The program was organized under the guidance of Dr. S.M. Saini, Faculty In-Charge, Rajbhasha Samiti, NIT Raipur. The program started by garlanding the picture of Munshi ji. After this the program started with a detailed introduction of the life of Premchand ji. Dr. Rao said that the Literature of Premchand ji like Godaan, Idgaah and Namak ka Daroga etc. are relevant even in the present times. He said that Munshi Premchand ji's literature is connected to the people and we should take inspiration from his life. After this the members of the Rajbhasha Samiti expressed their views on some special creations of Munshi Premchand's literature like Poos ki Raat, Thakur ka Kuan etc.

Aahwan'24



Rajbhasha Samiti, NIT Raipur commemorated Hindi Diwas by organizing Hindi Pakhwada Aahwaan, from 9th to 23rd Sept. 2024. The inauguration, held on 9th Sept. 2024, was graced by the presence of Chief Guest Dr. N.V. Ramana Rao. Director, NIT Raipur, along with **Dr. Nitin Jain**, Dean (SW), and other distinguished faculty members. The event was organized under the guidance of Dr. S.M. Saini, Faculty In-Charge, Rajbhasha Samiti. Dr. Rao emphasized the importance of embracing Hindi with pride and encouraged youth to actively promote the language. Throughout the fortnight, several events and competitions were organized. For faculty members, competitions like Quiz, Shabd Rachna (Word Formation), Kahani Poori Karo (Story Completion), and Kavita Vachan (Poetry Recitation) were held. In these competitions, Dr. Suraj Kumar Mukti, Associate Professor, ME secured 1st position in both the Kavita Vachan and Shabd Rachna competitions, while Dr. Ayush Khare, Professor, DoP and Dr. Rajan Kumar. Assistant Professor, EE also performed remarkably, securing 2nd and 3rd places respectively in Kavita Vachan and Kahani Poori Karo. Dr. Vivek Agnihotri, Assistant Professor, DoA secured 2nd place in Shabd Rachna. Also, in the Quiz competition, Team C, consisting of Dr. Nitin Jain, Dr. Govardhan Bhatt, Assistant Professor, CE, Dr. S. K. Mukti, Associate Professor, ME and

Dr. Ajay Vikram Ahirwar, Associate Professor, CE emerged victorious. Students participated in exciting activities such as Nukkad Natak (Street Play), Chitra Katha Lekhan (Picturebased storytelling), Treasure hunt, Dodgeball, Sack race, and Poetry recitation. In Dodgeball, the top three winners were Jagmohan Jaiswal, Raj Vikram Tiwari, and Krishna. In Kavita Vachan, the winners were Sarthak Pandey, who took 1st position, Harsh Tripathi stood 2nd, and Tanay Rathi on 3rd. The Chitra Lekhan competition saw Harshit Jhariya take 1st place, followed by Deepika Sinha and Muskan Sarkar in 2nd and 3rd place. In the Sack race for boys, Abhishek Kumar, K Soham, and Lakshman Ram secured the top three positions, while in the girls' category, Shikha Tiwari, Pawni Agrawal, and Sakshi Gangwani took 1st, 2nd, and 3rd place respectively. The event culminated on 23rd Sept. 2024 with a Prize distribution ceremony. Dr. Mohit Jaiswal, Assistant Professor, CE concluded the event by proposing the vote of thanks.

Drone Technology Workshop by ROBOTIX Club and Robobox



Robotix Club, **NIT Raipur** in collaboration with **The Robobox** conducted a workshop introducing students to the fundamentals of drone technology. With over 200 participants, the event covered drone assembly, working mechanisms, and practical applications, sparking innovation and hands-on learning.

National Sports Week'24



Department of Sports, NIT Raipur and **Shaurya - The Sports Committee** organized the closing and prize distribution ceremony of the **National Sports Week'24**, which ran from 26th to 31st Aug. 2024. The event was graced by the presence of **Dr. N. V. Ramana Rao**, *Director*, *NIT Raipur*, **Dr. D. Sanyal**, *Dean (FW)*, **Dr. Nitin Jain**, *Dean (SW)*, **Dr. H. K. Narang**, *Chief Faculty In-Charge*,

Department of Sports, Dr. Alfia Bano and Dr. S.D.V.S.S. Varma Siruvuri, Professor In-Charges, Department of Sports, Mr. Kamal Singh Maan, Sports Officer, and other faculty members, staff and students. During this, various sports competitions were held for the faculty, staff and students, including Badminton (Singles and Doubles), Table Tennis (Singles and Doubles), Volleyball and Chess. Additionally, fun events like a Cycling Rally, Tug of War and Dodge Ball were also organized for the faculty and students. **Dr. Rao** emphasized the importance of sports in our lives and explained how sports are essential for the overall development of an individual. Medals were awarded to the winners of various sports. In the sports organized for the faculty, Mr. Suresh Dua, Technical Assistant, MME stood 1st in the Cycling competition, Mr. Abhijeet Kumar stood 2nd and Dr. Suraj Kumar Mukti, Associate Professor, ME stood 3rd. In Badminton (Singles), Dr. Rajesh Doria, Assistant Professor, IT stood 1st, Mr. Heera Singh, Temporary Faculty, EE stood 2nd and Mr. Dharmendra Pandey, Technical Assistant, CSE and Mr. Abhijeet Kumar stood 3rd. In Badminton (Doubles), Dr. Doria & Mr. Pandey stood 1st, Dr. Lalit Sahu, Assistant Professor, EE & Mr. Heera Singh stood 2nd and Dr. D.C. Jhariya, HoD, DAG, Mr. Devendra Soni, Technical Assistant, ECE and Mr. Rakesh Chaudhary, Assistant Registrar, Mr. Abhishek Indwar, Assistant Registrar stood 3rd. In Chess, Mr. Vikas Kumar Vidyarthi, Assistant Professor, CE stood 1st, Mr. Kapil stood 2nd and Mr. Bhanu Pratap Singh, Stenographer and Dr. Amit Raj Singh, Associate Professor, ME stood 3rd. In Table Tennis (Singles), Dr. Sayon Pramanik, Assistant Professor, DoA stood 1st, Dr. Harendra Narang, Assistant Professor, ME stood 2nd and Dr. Amit stood 3rd. In Table Tennis (Doubles), Dr. Dharampal, Assistant Professor, DCE and Dr. Sandeep Chouksey, Assistant Professor, CE were the Winners, Dr. Amit and Dr. Mukti stood 2nd and Dr. Pramanik and Mr. Sarthak stood 3rd. In Table Tennis (Women's Category), Dr. Alfia Bano, Assistant Professor, CE got 1st place and Ms. Nisha Netam, Assistant Professor, ME got 2nd place. In the competitions organized for the students, Team Dry Day Hoopers secured 1st place in Basketball and Team Aura secured 2nd place. Whereas in Volleyball, Team Chemical secured 1st place, Team Animesh secured 2nd place and Team Navdeep secured 3rd place.

Engineers' Day by Shaurya



Shaurya-The Sports Committee, **NIT Raipur** successfully hosted an engaging Engineers' Day event on 15th Sep. 2024, celebrating the engineering profession through a series of interactive games. The event featured activities such as a

Treasure Hunt, Beg Borrow & Steal, and Arm Wrestling. Faculty members also participated in events like Stack Attack and Musical Chairs. The event concluded with the distribution of mementos and youchers to the winners.

Alumni Achievements

- Mr. Achyut Ghatak, (1989/Mining) was selected as Director (Technical) in Coal India Ltd. Alumni Association, GEC-NIT Raipur wishes him a happy, healthy, prosperous life full of such great achievements.
- Mr. Devendra Kumar Tuli, (1984/Civil) was promoted as Executive Director (Civil) in CSPTCL. Alumni Association, GEC-NIT Raipur wishes him a happy, healthy, prosperous life full of such great achievements.

Contribution to the Institution

Donations

• NIT Raipur expresses sincere gratitude towards Shri Amitava Sur (Mech/1970) who has made a generous donation to the Institute.

Appeal

Ever since its establishment in 1956, the institute has been serving and maintaining steady progress to achieve a unique feat in the highly competitive area of engineering and technology. To focus on cutting-edge multidisciplinary and frontier areas of engineering and technology as well as innovation-based research, a strong and continuous financial support from alumni, faculty members, students and all well-wishers is the need of the hour. All the stakeholders of the Institute have a major role in building a corpus fund to support various teaching and research infrastructures, and other allied facilities for the welfare of students. NIT Raipur appeals to all alumni, faculty members, students, and well-wishers for their contribution to the NIT Raipur Donation Fund. The financial donation is exempted under section 80G (5) (vi) of the Income Tax, 1961 Vide IT Order Number ITBA/EXM/S/80G/2019-20/1015830613(1) dated 29/04/2019.

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