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an initiative of RV EDUCATIONAL INSTITUTIONS

SOCSE *Binary Banner*

1st Edition





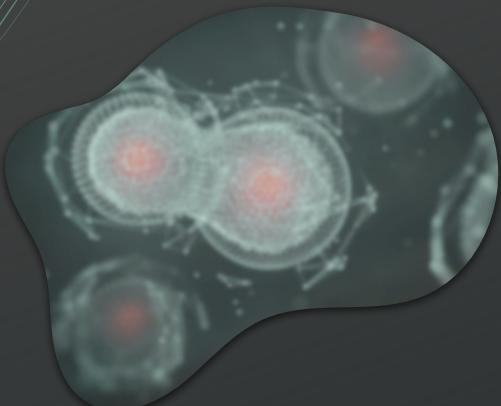
SOCSE EVENTS OVERVIEW



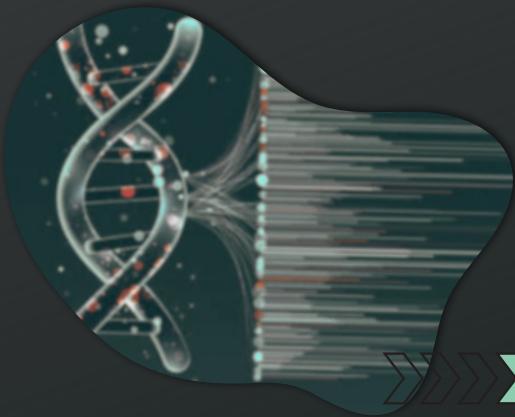
GUEST LECTURE ON

BIOINFORMATICS

On January 7, 2025, an insightful online guest lecture on Bioinformatics was held via Zoom from 2:00 PM to 5:00 PM, featuring **Prof. Dr. Vidya Niranjan**. The session brought together 238 B.Tech students from the 2024 batch along with researchers and professionals.



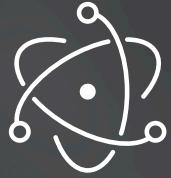
Organized by **Bharath Manchikodi, Amruthesh Bhat, Durgarao Guttula, and Baishali Garai**, the lecture explored the molecular foundations of life and the role of computational techniques in biological research. This event underscored the growing significance of bioinformatics in healthcare, genetics, and drug discovery.



UI/UX DESIGN



INSPIRE



INDUSTRY LECTURE

This event provided a vibrant platform for researchers, academicians, and students to engage in stimulating discussions and exchange innovative ideas. The symposium commenced at 9:30 AM with an inspiring inaugural address by the **Honorable Vice Chancellor, Prof. (Dr.) Sanjay Kumar**.



A guest lecture on **UI/UX and Design Thinking** was held on January 8, 2025. The session, delivered by **Mr. Siddhant J. Verma**, provided valuable insights into user interface and experience design principles. Coordinated by **Prof. Evlin Vidyu Latha**, the lecture focused on enhancing participants' understanding of design thinking methodologies.

On January 16, 2025, **Bhargava Hegde, CEO of Dots**, delivered an insightful session on **EV Infrastructure**. Coordinated by **Dr. Phani Kumar Pullela**, the talk highlighted key innovations and the importance of robust charging solutions for sustainable transportation.



Innovation and Collaboration:

BVB-RVU Patent Drafting Workshop & MOU Signing Ceremony

A significant milestone in academia and research collaboration was achieved with the successful Intellectual Property and Innovation Workshop, .



From 28th to 30th December 2024, **Dr. Phani Kumar Pullela** led an **Intellectual Property and Innovation Workshop** that offered hands-on patent drafting experience and deepened understanding of intellectual property rights. The event culminated in a landmark MoU between **RV University and Bharatiya Vidya Bhavan**, with distinguished speakers emphasizing interdisciplinary research and industry-academia synergy.

MERN Stack Workshop



School of Computer Science and Engineering hosted an intensive **MERN Stack Workshop** on 24th January 2025, from 9:30 AM to 5:30 PM.

Coordinated by **Prof. Anik Acharjee, Prof. Maneesh Rajan, and Dr. Vidyā M J**, the event provided 4th and 6th-semester B.Sc. students with hands-on learning and industry insights.

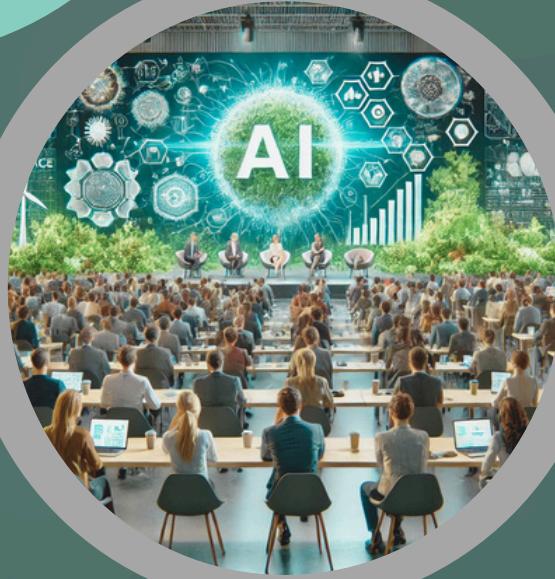
Following an inspiring inauguration by **Dr. Vidyā M J**, speakers **Mrs. Shohini Ghosh and Mr. Sanjoy Paul (Partner at "Thrive Together")** shared their expertise on integrating **AI/GenAI into MERN Stack applications**, effectively bridging academic knowledge with industry practices.



AI + SUSTAINABILITY JOB READINESS PROGRAM, A COLLABORATIVE INITIATIVE BETWEEN 1M1B AND IBM.

This was successfully conducted to empower students with skills and knowledge in AI and sustainability. This initiative aimed to prepare participants for future-ready job roles by combining cutting-edge technology training with an emphasis on addressing global sustainability challenges.

The Event has been inaugurated by our Assistant Dean **Dr. Merin Thomas** and Program Director - **Dr. Vidya M J**
Participation B.Sc graduates of II, IV and VI semesters
Date: 20th January 2025
Coordinator: **Dr K Sailaja Kumar**





Circuitrix

Circuitrix

Circuitrix

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Circuitrix

Exciting moments at Circuitrix 2.0! Presented by the Centre of IoT & Edge Computing, School of Computer Science and Engineering, RVU, and ChipTech Club, this exhibition highlighted the power of combining technology with creative lighting design.

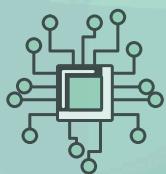


Circuitrix 2.0 was a dazzling celebration of innovation, showcasing creative basic electronics projects by first-semester B.Tech (H) students—crafted entirely without microcontrollers.



Esteemed judges included Dr. Bharathi Gururaj, Ms. Navya Holla K, Dr. Manasa R, Dr. Sarvamangala D.R, Ms. Usha Rani M.A, and Mr. Santosh Narayanan, with Prof. Aishwarya Singh Gautam as the Faculty Coordinator.

The opening ceremony featured inspiring remarks from Dr. Shobha G. (Dean of SoCSE), Dr. Sudhakar KN (Programme Head - BTech (H)), Prof. Aishwarya Singh Gautam, and other DSCA faculties, setting the stage for an event seamlessly managed by the ChipTech Club.



STUDENT ACHIEVEMENTS



Sai Venkata Jaswant Kolupuri, a B.Tech (Hons) student at RV University, successfully presented a paper at the **International Conference on Distributed Computing and Networking (ICDCN) 2025**, held from January 4 to January 7, 2025, at IIT Hyderabad.



Apeksha N, a second-year B.Sc. (Hons.) Computer Science student at RV University, proudly represented the university and the **NSS team** at the prestigious **National Republic Day Parade Camp** in Delhi. This remarkable achievement showcases Apeksha's leadership, dedication, and active involvement in national service, bringing recognition to both herself and RVU.



Saran Chekka represented Karnataka at the **National Youth Festival 2025**, held at Bharat Mandapam, Delhi, from January 10 to 12, 2025, where only 3,000 participants were selected nationwide. Saran was one of the 75 young leaders chosen from Karnataka for the prestigious Young Leaders Dialogue. This achievement highlights Saran's leadership potential and dedication to youth empowerment on a national platform.



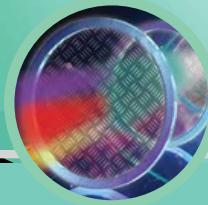
Akshaya S and her team represented RV University at **KTech Elevate Beyond Bangalore** on January 18, 2025, showcasing their innovative spirit and RVU's commitment to fostering startup culture and technological growth.



M.P. Jagruth clinched the Gold Medal at the **All India Inter-University Karate Championship**, held at **MDU University**, Rohtak, Haryana, from January 14 to 18, 2025. This outstanding achievement showcases Jagruth's dedication, skill, and excellence in sports, bringing pride to RV University on a national level.



Deekshith R. Prabhu contributed to the research on **Thermal Imaging Applications in Shock Detection** in collaboration with **KMC Manipal** and **MIT Manipal**, which was published in the prestigious Q1 Journal, **Engineered Science**. This significant achievement, reflecting high-quality research, underscores Deekshith's contribution to advancements in the field of thermal imaging and shock detection.



The **NextWave team**, consisting of **Niyanthri R. Sridhar, Harika Sriram Anantha, Reuben Thomas, Adishree Karthikeyan, and Harshini Mridula Mohan**, secured 3rd place in the **Envision Designathon 2025** at **Srishti Manipal Institute, Bengaluru** for their innovative **GreenGrid** wildfire management solution, featuring robotic birds and AI-powered early detection.



Sujay V. Kulkarni was awarded the **Sangeet Prabhakar National Award** for his exceptional contributions as a tabla artist at the **All India Music Festival**, organized by the **National Talented Child Academy** and the **National Classical Dance Academy** on December 30, 2024. This prestigious recognition highlights Sujay's excellence in music.

Srinivas Varda was awarded a **Certificate of Appreciation** for successfully presiding over a conference as the chairperson at the **IIMUN (India's National Movement to Unite Nations)** Conference held in Hyderabad. This recognition highlights Srinivas's leadership skills.





STUDENT/FACULTY PUBLICATION

LIGHTMOT

1 Dr. P. Karthikeyan has made significant research contributions with three publications in reputed journals. His paper '**LightMOT: Lightweight and Anchor-free Solution for Tracking Multiple Objects in Dense Populations**' is set to be published in May 2025 in a Q1 SCIE journal (Impact Factor: 6.2) by Elsevier. His research on '**TDPM-CNN: A Comprehensive Daytime and Nighttime PM_{2.5} Estimation Method Using Multi-Kernel Convolutional Neural Networks**' was published on December 30, 2024, in a Q2 SCIE journal (Impact Factor: 2.7) by Springer. Additionally, his paper '**Protecting Digital Assets Using an Ontology-Based Cyber Situational Awareness System**' was published on January 9, 2025, in a Q2 ESCI journal (Impact Factor: 3) by Frontiers. All three papers are indexed in Scopus



AI - ASIC Verification



2 Prof. Suresh N, Dr. Sudhakar K. N, and Dr. Phani Kumar Pullela presented their paper '**Multi-Objective Test Case Generation and Prioritization Using Generative AI for ASIC Verification**' at CSITSS 2025. Published on January 1, 2025, in IEEE Xplorer, it is indexed in Scopus

Q2 SCIE

3 Dr. Harish H's paper titled "**Experimental Investigation of Herbal-Based Al₂O₃ Nano Cutting Fluids with Minimum Quantity Lubrication in Optimization of Turning**" was published in January 2025 in a Q2 SCIE journal with an impact factor of 2.1 by Springer. The paper is indexed in Scopus



4

Digital Dentistry & Medical Robotics

Dr. Vidya MJ presented two papers: "**An Improvised Approach Using YOLOv3 Architecture for Digital Panoramic Teeth Recognition and Classification**" at the 46th EMBC Conference on December 17, 2024, and "**Synergism of Medicine and Robotic Applications for the Future - A Review**" at the CSITSS 2025 Conference on January 1, 2025. Both papers, published in IEEE Xplore and indexed in Scopus, explore advancements in digital teeth recognition and the integration of medicine and robotics.



Supply Chain & Sustainable Agriculture

Prof. Suresh N and Dr. Phani Kumar Pullela presented their research at CSITSS 2025. Their papers, "**Development of an Integrated Framework for Quality & Reliability Across the Supply Chain**" and "**Optimising Small-Scale Agricultural Land Using IoT and Machine Learning for Sustainable Resource Utilisation**," focus on supply chain efficiency and sustainable agriculture. Both the papers were published in IEEE Xplore on January 1, 2025, and indexed in Scopus

5

Hybrid Composite Coatings

Dr. Ramesh S's paper titled "**Synthesis and Characteristics of Fe/Ni/Cr Oxide Nanoparticles/PLA Hybrid Composite Coatings on Mg-Zn-Ca Alloy**" was published on January 29, 2025, in the Q1 SCI journal, Journal of Materials and Technology (Impact Factor: 6.2), by Elsevier. The paper is indexed in Scopus



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FACULTY ACCOMPLISHMENTS

Dr. Phani Kumar



- On January 8, 2025, RVCE, Bangalore hosted a **Patent Drafting Workshop** at the MCA Seminar Hall, attracting over **50 ISE, CSE, and AI/ML students**. The workshop provided hands-on experience and an in-depth understanding of the patent filing process and its benefits.
- On January 17, 2025, Kunal K and Geethika Sunkara, accompanied by **Dr. Phani Kumar Pullela**, participated in an industrial visit to **Robust Materials** in **Nagarbhavi, Bangalore**. The visit offered valuable guidance on the **Elevate Grant** and insights into **FSSAI License** protocols.



Dr. Merin Thomas

- On Jan 6-11, 2025, served as a resource person for the **ATAL FDP** on "**Architectures and Applications of Next Generation Communication Systems**" (online, IILM University).
- On Jan 8, 2025, acted as an **External Examiner** for a PhD evaluation at **Jain University, Bangalore**.
- On Jan 11, 2025, reviewed an **MTech Dissertation** at **Presidency University**.

Dr Rammohan Bhanumurthy

On December 9, 2024, an expert participated in the **DPC/Review Committee Meeting** at ISRO UIR Rao Center for the promotion from **Sci/Engr-SE to SF**. Their insights played a key role in the evaluation process.



Dr Baishali Garai

On December 28, 2024, an external member joined the PhD scholar's **Research Advisory Committee** at Dayanad Sagar University. Their expertise provided valuable insights to guide the research process.



Dr. Manish kumar

From December 30, 2024, to January 3, 2025, the **E & ICT Academy at IIT Kanpur** hosted a self-paced online FDP on Cyber Security. Additionally, on January 8-9, 2025, served as a resource person for an offline FDP at **Presidency University** on **Integrating Computational Innovations in Digital and Mobile Forensics & Security Assessment Testing**.



Dr K Shailaja Kumar

On January 8th and 9th, 2025, the **Department of MCA at RVITM, Bangalore**, hosted an offline 2-day workshop titled "**Visual Analytics Simplified: Power BI and Tableau.**" Served as a resource person, sharing insights and expertise in visual analytics.



Prof. Lokesh JK

From January 20–25, 2025, **K K Wagh Institute, Nashik**, hosted an online FDP on **AI-Driven Educational Technologies**.

Educators were empowered with innovative AI strategies for enhanced teaching.

From November 2024 to January 2025, **IIT Bangalore** held an offline **Microsoft Azure AI Fundamentals Course** on weekends.

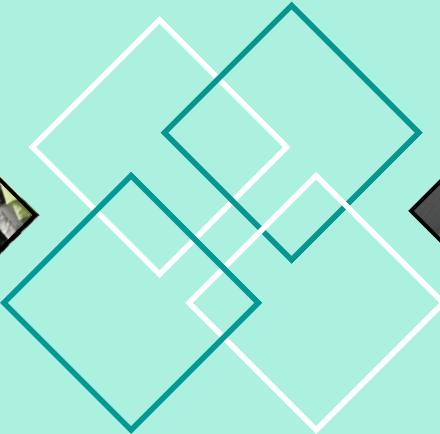
Participants gained hands-on experience with Azure's AI capabilities.

Dr. Shabbeer Basha is leading the project titled '**Badminton Match Analysis using Computer Vision**', funded by **VISIST AI Technologies Pvt. Ltd.** under a consultancy agreement. The project has been sanctioned a total of **₹120,000**, with **₹80,000** already received. This initiative showcases RVU's commitment to innovative applications of computer vision in sports analytics

Dr. Shabbeer Basha is leading the project titled '**Deep Model Compression**', funded by **Perforated AI** under a consultancy agreement. The project has received a total funding of **5000 USD**, with **₹2,13,095** already sanctioned.

This initiative highlights RV University's increasing engagement in AI-related consultancy work and its partnership with industry leaders to advance innovations in deep learning and model compression techniques



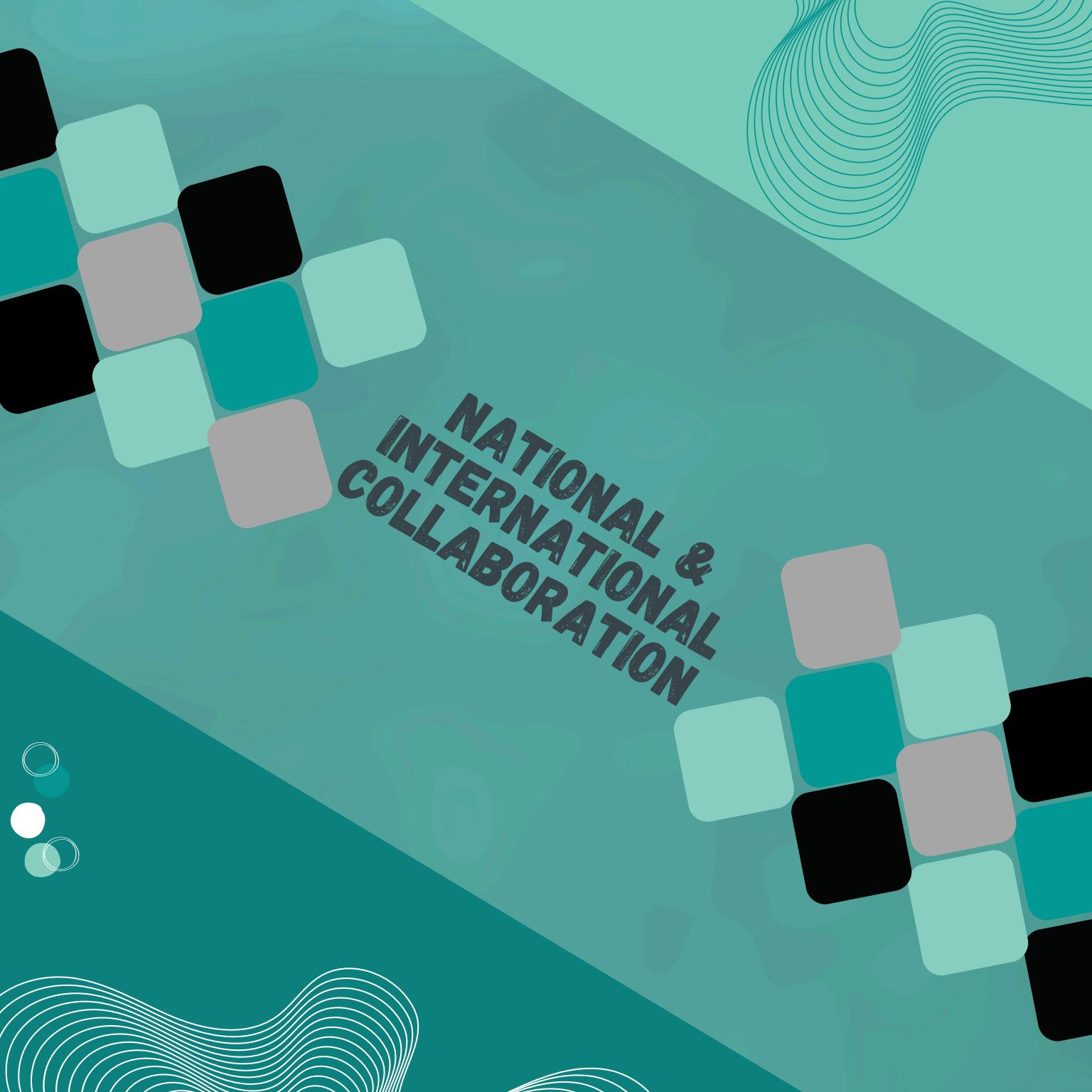


A total of **14** industrial designs were filed as part of the Winter Internship initiative by SODI & SoCSE. These include **11** designs filed on **January 8, 2025**, and **3** designs filed on January 10, 2025.

The designs, contributed by BSc, BCA, and BTech students of SoCSE, focus on structured innovation games. One of the three industrial designs filed on January 10 is a product concept developed in collaboration with SODI & SoCSE, while the remaining two designs are exclusive inventions by SODI students. The initiative is led by Prof. Dr. Phani Kumar Pullela.

Patents during the Month





NATIONAL & INTERNATIONAL COLLABORATION



A

On January 22, 2025, RV University engaged in a mentoring collaboration with the startup **Powerful**, focusing on securing the **Elevate Grant** and finalizing a Memorandum of Understanding (MoU). The CEO of Powerful, **Abhay Rangan**, visited RVU to discuss the MoU and receive guidance from **Dr. Phani Kumar Pullela** on the grant application. The discussions also explored student internships, scaling strategies, and digital marketing for growth. This collaboration highlights RVU's role in nurturing entrepreneurship and strengthening industry connections.



National Academic Immersion Program

C

On January 22, 2025, RV University facilitated a mentoring collaboration for the startup Karunya Musicals, focusing on securing the **Elevate Grant** and exploring a potential Memorandum of Understanding (MoU). **Varadarangan Krishnaiyengar**, CEO of **Ethical Rhythms**, visited RVU to discuss the MoU and seek guidance from **Dr. Phani Kumar Pullela** on the grant application. The discussions also covered internship opportunities, digital marketing strategies, and support for two patents. This collaboration underscores RVU's commitment to fostering innovation, entrepreneurship, and industry-academia partnerships.



Dr. Phani Kumar Pullela and Abhay Rangan

National Academic Immersion Program - RV University hosted the National Patent Drafting Workshop & Consultancy as part of **MIT WPU's NAIP** from December 19, 2024, to January 11, 2025. The event aimed to boost patent drafting skills for MIT WPU students and develop tools for RVU. It also secured a Rs. 46.80 lakh consultancy for the School of Computer Science and Engineering (SoCSE), RVU. Led by **Prof. Chidhananda R. Ramesha GN**, **Dr. Sudhakar KN**, **Prof. Suresh N**, and **Dr. Phani Kumar Pullela**, the collaboration enhances RVU's expertise in intellectual property and academic consultancy.



Varadarangan Krishnaiyengar and Dr. Phani Kumar Pullela

B

RV University (RVU) has partnered with the Electronics and **Radar Development Establishment (LRDE)**, DRDO, Bengaluru, to review the Preliminary Design Review (PDR) document for an upcoming radar project. The collaboration, formalized on January 20, 2025, underscores RVU's growing role in advanced research and technology. **Prof. Chandramouleeswaran Sankaran**, the faculty in charge, will serve as an academic expert in the Project Review Committee of LRDE, contributing valuable insights to the project.



Dr. Manish Kumar

Dr. Vidya M J - Nokia University has partnered with RV University to offer **Web Development Security and Cyber Security** sessions. These 1-hour sessions will be held four times a week for 15 weeks, starting January 13, 2025, for 6th semester BTech and BSc students.

D

E

F



Prof. Chandramouleeswaran Sankaran

On January 10, 2025, **Dr. Manish Kumar** conducted a thorough review on the book "**Offensive Security Using Python**", published by **Packt Publishers**. The review focused on the book's approach to integrating Python with offensive security techniques. This initiative reflects RV University's commitment to engaging with cutting-edge cybersecurity topics and promoting critical thinking in technology.



Dr. Vidya M J

STUDENT-FACULTY ACHIEVEMENT

Prajna and Samarth, under the guidance of **Dr. Shabbeer Basha**, secured an internship at **VISIST AI Technologies**, gaining hands-on experience in AI applications

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Lavanya M, Yashmeet Baid, Shristi L, Dr. Baishali G, and Dr. Shabbeer Basha will present their research at the **3rd World Congress on AI in Materials and Manufacturing** in California, June 2025, showcasing their contributions to AI-driven advancements

As part of the **Winter Internship**, 20 students from SoCSE & SDI, under the guidance of **Dr. Phani Kumar Pullela**, were offered internships by the **Centre for Innovation & Entrepreneurship** through the **MIT WPU** consultancy program

Kshitij Satish Mahajan, under the guidance of **Dr. Chidanand R S**, presented the paper titled "**Sustainable Water Management: A Regression-Based Approach to Predicting Demand and Distribution for an Indian Geography**" at a conference. The paper, focusing on innovative methods for sustainable water management, was published in IEEE

We encourage submissions of articles, insights, and contribution on technology, scientific advancements, and related topics for our Newsletter (Faculty or Students)

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A Newsletter for the School of
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