MVJ College of Engineering

AVINYA 2025 Hackathon

Under the aegis of ANRF (SERB) – INAE Innovation Hackathon

Event Report:

AVINYA 2025, a 30-hour continuous hackathon, was organized by MVJ College of Engineering, Bangalore, in collaboration with the Indian National Academy of Engineering (INAE) under the aegis of ANRF (SERB) – INAE Innovation Hackathon on 19th and 20th March 2025. This event, which derives its name from the Sanskrit term meaning "innovation," aimed to promote creativity and the generation of groundbreaking ideas among engineering students from various institutions. Participants were encouraged to explore themes related to healthcare and management, smart vehicles, cybersecurity, and blockchain. The event featured distinguished guests, keynote speeches, and a series of activities spread over two days.

On March 19, 2025, the program commenced with a welcome address by Dr. Ajayan K.R., Principal of MVJCE. He extended heartfelt greetings to the President and Vice President of INAE and emphasized the significance of the recently established MoU between MVJCE and INAE. He highlighted the swift and productive collaboration that resulted in the organization of two impactful events within just one month.

The Presidential Address was delivered by Mr. J.D. Patil, President of the Indian National Academy of Engineering (INAE), through virtual mode. He explained the formation of INAE, its history, importance, and significance. Mr. Patil emphasized the crucial role of innovation in engineering and the responsibility of young minds in shaping the future of technology. His address underscored the importance of hackathons in identifying real-world challenges and fostering innovative problem-solving beyond traditional approaches. It also highlighted the role of engineers in national development and job creation.

The Inaugural Address was delivered by Prof. Sivaji Chakravorti, Vice President of INAE. Prof. Sivaji gave an engaging talk, citing real examples that underscored the importance of innovation. He shared stories of innovators like Henry Ford (automobile innovation) and Thomas Edison (electric bulbs) to illustrate the essence of thinking differently. He also mentioned the significance of data interpretation through the story of Abraham Wald during WWII,

emphasizing the value of deeper analysis for effective solutions. Prof. Sivaji encouraged participants to view challenges as opportunities for innovation and reinforced the importance of teamwork and continuous learning during the hackathon.

Dr. M. Brindha, Coordinator of AVINYA 2025 and Dean of Affiliation & Accreditation at MVJCE, delivered the vote of thanks, acknowledging the contributions of the distinguished speakers, participants, and organizers.

Hackathon Activities:

The AVINYA 2025 Hackathon brought together teams from various colleges under three themes: Cybersecurity and Blockchain, Healthcare, and Smart Vehicles. The sessions were held in the Smt. Rajalakshmi Seminar Hall, where students worked on problem statements under continuous evaluation by experts.

Some of the innovative projects undertaken by participants included blockchain-based solutions for secure welfare scheme management and decentralized marketplaces for hospital equipment rentals, healthcare innovations such as AI-powered smart glasses for glaucoma detection and non-invasive hemoglobin monitoring, robotics projects featuring autonomous navigation systems and smart accident detection systems, and web transparency tools like Expose Net to enhance online accountability. Additionally, creative initiatives such as Little Imaginators fostered innovation among young minds. The hackathon showcased the transformative potential of technology in solving real-world challenges, fostering collaboration, and driving innovation across multiple domains.

In the afternoon session, Mr. Subbaraja Sirasala, Senior Enterprise Solutions Architect at GE Aerospace, delivered a keynote speech on "The Role of Technology & Its Impact on Cybersecurity." He highlighted the evolving cybersecurity landscape, the challenges posed by emerging technologies, and the necessity of proactive measures to ensure digital safety.

Day 2, held on 20th March 2025, featured a keynote speech by Mr. Shravan S. Naidu, Principal Architect & Director at Alegeus, on "Engineering Beyond the Classroom: The Journey of Lifelong Learning." His address emphasized the importance of continuous learning and

adaptability in engineering. The hackathon concluded with a final evaluation conducted by experts.

In the evening, a cultural program was organized, featuring a stage play and short film screenings by the RaagAbhinaya Club, as well as slam poetry performances by the Saahitya Club.

The event featured competitions in three key themes:

1. Healthcare and Management – 10 teams
   Judges:
   - o Mr. Vasantha Kumar, Engineering Manager, Alegeus, Bangalore
   - o Mr. Shravan S Naidu, Principal Architect & Director, Alegeus, Bangalore
2. Smart Vehicle – 9 teams
   Judges:
   - o Dr. Raghavendra, Professor, IISc.
   - o Mr. Bejoy John, Senior Director, OWS Manufacturing Shops, GE Aerospace, Bangalore
3. Cyber Security &Block chain – 8 teams
   Judges:
   - o Mr. Navdeep Agarwal, Senior Security Architect, GE Healthcare, Bangalore and Director, ISC2, B
   - o Mr. Subbaraja Sirasala, Senior Enterprise Solutions Architect, GE Aerospace, Bangalore

Participant Teams:

	THEME: HEALTH CARE AND MANAGEMENT		
SI.NO	NAME OF THE STUDENT	NAME OF THE COLLEGE	PROJECT TITLE
1	NIKHITHA S ANVEESH S PRAJWAL	VIDYA VARDHAKA COLLEGE OF ENGINEERING, MYSORE	RESPIRATECH - COMPACT NOSTRIL AIR FILTER FOR AIR POLLUTION

			PROTECTION
	HANAMANTRAYA BARIKAI		
	PRUTHVIN B V		
2	HARSINI S R	SRI RAMAKRISHNA ENGINEERING COLLEGE, COIMBATORE	THE DVT PREVENTION AND WELLNESS BOT
	HIMA SRI R		
	GURUPRASAD N		
	ELAKKIYA R		
3	SHANMUGA LINGAM K	SRI RAMAKRISHNA ENGINEERING COLLEGE, COIMBATORE	NON-INVASIVE AI-BASED SMART RING FOR SILENT HEART ATTACK AND FATIGUE MONITORING
	JOKITA HARINI A D		
	JEGADEESWARAN T		
4	SAM JOSHUA A	SRI RAMAKRISHNA ENGINEERING COLLEGE, COIMBATORE	NON INVASIVE HEMOGLOBIN MONITORING SYSTEM
	ABHINANDH M D		
	VISHNU CHARAN S		
5	SHANMUGARAJA D	SRI RAMAKRISHNA ENGINEERING COLLEGE, COIMBATORE	REVOLUTIONIZING HEALTHCARE: THE TRANSFORMATIVE POWER OF AI
	SRINATH S		
	SANJAY A		
	ANDREW MATHEWS C		
6	KAVYA P	KONGU ENGINEERING COLLEGE, ERODE	DEEP LEARNING BASED CANCER DETECTION
	JEEVIGA SK		
	KIRUTHIKA A		
7	MOULYA K R	REVA UNIVERSITY& RVCE, BANGALORE	AI-POWERED SMART GLASSES FOR EARLY GLAUCOMA DETECTION
	FLORENCE SOLOMON		
	MITHRA N GOWDA		
	BHARAT KUMAR M S		
8	RANGANATH S	MVJ COLLEGE OF ENGINEERING, BANGALORE	AFFORDABLE, HIGH-FIDELITY WEARABLE ECG FOR REAL-TIME CARDIAC HEALTH MANAGEMENT
	SAMUEL D		
	MUNISHAMI HK		
	TEJAS A		
9	SELVAPANCHU S	SRI KRISHNA COLLEGE OF TECHNOLOGY, COIMBATORE	AI-POWERED SMART SHOE
	SHANJUVIGASINI A S		
	SHESHADHRI S		
	VISHAL S		
10	CH CHANDANA SHREE	MVJ COLLEGE OF ENGINEERING, BANGALORE	PERSONALIZED HEALTH CARE (HEALING HUB)
	A LAVANYA		
	AAKANKSHA ANIL KUMAR		
	KHANAK JUTTIYAVAR		

SI.NO	NAME OF THE STUDENT	NAME OF THE COLLEGE	PROJECT TITLE
THEME: SMART VEHICLE			
1	TARUN TEJU KRISHNA UDITH MP SAMARTH SR	MVJ COLLEGE OF ENGINEERING, BANGALORE	RASPBERRY PI-POWERED WEAPONIZED TANK ROBOT WITH CAMERA & LASER TARGETING
2	NITHIN M ARAVIND S HEGAREDDI NITIN V KOORSE ARUN HEGDE	MVJ COLLEGE OF ENGINEERING, BANGALORE	SMART ACCIDENT DETECTION & ALERT SYSTEM
3	JOHANAZ NADAF KARTHIK M MUSSARRAT KITTUR SATHVIK P D	MVJ COLLEGE OF ENGINEERING, BANGALORE	SMART AL- DRIVEN FUEL EFFICIENCY AND ECO-DRIVING ASSISTANT
4	ASHISH RAMESH JIYA PANDEY MD EHTASHAM NABI	MVJ COLLEGE OF ENGINEERING, BANGALORE	AI VOICE ASSISTANCE FOR AUTONOMOUS NAVIGATION
5	SABARI GAYATHRI A OVIYA P SANJEEVI I T.RAMACHANDRAN	ERODE SENGUNTHAR ENGINEERING COLLEGE	INTELLIGENT MOBILITY ASSIST WHEELCHAIR (IMAW)
6	KARUNYA.S.I VANISHRI.M SETHUMADHAVI.K G. MANGAIYARKARASI	SRI KRISHNA COLLEGE OF TECHNOLOGY, COIMBATORE	ACCIDENT DETECTION AND INFORMATION SYSTEM
7	GOWTHAM KRISHNA U CHITHRANI PS	SRI KRISHNA COLLEGE OF TECHNOLOGY, COIMBATORE	DRIVER FATIGUE DETECTION AND RESPONSE SYSTEM
8	GOPI SANKAR M GOWTHAM CD MYLAANANTH GT KEERTHIKA V	KONGU ENGINEERING COLLEGE, ERODE	AI-POWERED SMART AMBULANCE SYSTEM
9	N RAM SRUJAN RAJ AJAY K.R AASHRITH G	SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, BANGALORE	SAFEDRIVE

SI. NO	NAME OF THE STUDENT	NAME OF THE COLLEGE	PROJECT TITLE
	THEME: CYBER SECURITY AND BLOCK CHAIN		
1	V PRAJWAL SARAVANA P AYUSH KUMAR	MVJ COLLEGE OF ENGINEERING, BANGALORE	TRUECHAIN
2	T E SHYAM YERUVA AMARNATH REDDY SAHIL PARASHRAM DESAI SIDDALING NAGAVIMATH	MVJ COLLEGE OF ENGINEERING, BANGALORE	FACIAL RECOGNITION LOCKER SYSTEM FOR PG'S
3	SANKEERTH S B HARSHATH R RISHI ANAND BHARATH S	MVJ COLLEGE OF ENGINEERING, BANGALORE	A DECENTRALIZED MARKETPLACE FOR HOSPITAL EQUIPMENT RENTALS
4	NANDAN PATIL M PRATHEEKSHA K M	MVJ COLLEGE OF ENGINEERING, BANGALORE	EXPOSENET - PS TITLE: ENHANCING WEB TRANSPARENCY
5	ADITYA DESHMUKH SACHIN PATEL PRAJWAL P MANGAJI SRIKAR	MVJ COLLEGE OF ENGINEERING, BANGALORE	ZERO-DAY SENTINEL - A BLOCKCHAIN-POWERED AL SYSTEM FOR ZERO-DAY VULNERABILITY DETECTION
6	SASHWATH Y MAHARAJA M S NITHISH M SREERAJ P P	SRI RAMAKRISHNA ENGINEERING COLLEGE, COIMBATORE	BLOCKCHAIN-INTEGRATED BIOMETRIC AUTHENTICATION SYSTEM FOR SECURE WELFARE SCHEME MANAGEMENT
7	ROHITH.B SHAARUKEISH E S JASPREET SINGH KRITVI S	SRI RAMAKRISHNA ENGINEERING COLLEGE, COIMBATORE	DDOS PROTECTION SYSTEM FOR CLOUD : ARCHITECTURE AND TOOL
8	ANANYA G DHANUSH SHRESTI K HARIPARSAD YASHWANT V	DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT, BANGALORE	LITTLE IMAGINATORS

Here are the winners under different themes:

	Theme: Healthcare and Management		
First Prize Rs 25,000	NIKHITHA S ANVEESH S PRAJWAL HANAMANTRAYA BARIKAI PRUTHVIN B V	VIDYA VARDHAKA COLLEGE OF ENGINEERING, MYSORE	RESPIRATECH - COMPACT NOSTRIL AIR FILTER FOR AIR POLLUTION PROTECTION
	Second Prize of Rs. 10,000 was shared among two teams		
Second Prize 5000	MOULYA K R FLORENCE SOLOMON MITHRA N GOWDA BHARAT KUMAR M S	REVA University & RVCE	AI-POWERED SMART GLASSES FOR EARLY GLAUCOMA DETECTION
Second Prize 5000	CH CHANDANA SHREE A LAVANYA AAKANKSHA ANIL KUMAR KHANAK JUTTIYAVAR	MVJCE	PERSONALIZED HEALTH CARE (HEALING HUB)
	Theme: Smart Vehicle		
First Prize Rs 25,000	ASHISH RAMESH JIYA PANDEY MD EHTASHAM NABI	MVJCE	AI VOICE ASSISTANCE FOR AUTONOMOUS NAVIGATION
Second Prize 10000	SABARI GAYATHRI A OVIYA P SANJEEVI I T.RAMACHANDRAN	ERODE SENGUNTHAR ENGINEERING COLLEGE	INTELLIGENT MOBILITY ASSIST WHEELCHAIR (IMAW)
	Theme: Cyber Security & Block Chain		
First Prize Rs 25,000	T E SHYAM YERUVA AMARNATH REDDY SAHIL PARASHRAM DESAI SIDDALING NAGAVIMATH	MVJCE	FACIAL RECOGNITION LOCKER SYSTEM FOR PG'S
	Second Prize of Rs. 10,000 was shared among two teams		
Second Prize 5000	ROHITH.B SHAARUKEISH E S JASPREET SINGH KRITVI S	SRI RAMAKRISHNA ENGINEERING COLLEGE	DDOS PROTECTION SYSTEM FOR CLOUD : ARCHITECTURE AND TOOL

Second Prize 5000	ADITYA DESHMUKH SACHIN PATEL PRAJWAL P MANGAJI SRIKAR	MVJCE	ZERO-DAY SENTINEL - A BLOCKCHAIN-POWERED AL SYSTEM FOR ZERO-DAY VULNERABILITY DETECTION

The Event was concluded with closing remarks and a Vote of Thanks by Dr. M Brindha, Coordinator of AVINYA-2025 and Dean - Affiliation & Accreditation, MVJCE. AVINYA 2025 was a resounding success, bringing together some of the brightest minds in engineering and technology. The event not only encouraged innovation but also highlighted the importance of collaboration and lifelong learning in the field of engineering. The organizers, participants, and guests contributed to making this event a memorable and impactful experience.

Mr. J D Patil, President of INAE addressing students on 19th March 2025 at Dr. M V Jayaraman Auditorium

Prof. Sivaji Chakravorti, Vice President of INAE addressing students on 19th March 2025 at Dr. M V Jayaraman Auditorium

Prof. Sivaji Chakravorti, Vice President of INAE is interacting with students on 19th March 2025 at Smt. Rajalakshmi Seminar Hall

Judges of Cyber Security & Block Chain Theme evaluating the students' work on 19th March 2025

Judge of Smart Vehicle Theme evaluating the students' work on 20th March 2025

Judges of Health care & Management Theme evaluating the students' work on 20th March 2025

A team from Erode Sengunthar Engineering College received second prize, worth Rs. 10,000, for their project titled 'Intelligent Mobility Assist Wheelchair (IMAW)' under the Smart Vehicle theme from the Judge, Mr Bejoy John, Senior Director, OWS Manufacturing Shops, GE Aerospace, Bangalore