AUGUST 2025

SAKTHI HACKATHON 1.0

A PLATFORM FOR INNOVATION, NETWORKING, AND GROWTH.

COMMITTEE

Convenor: Dr.P.Govindasamy, Principal, Dr.MCET
Co-Convenor: Dr.A.Senthil Kumar, Vice Principal, Dr.MCET
Co-ordinator: Dr.R.Sudhakar, Associate Dean SR

src.drmcet.ac.in/events/sakthi_hackathon_1.0

Table of Contents

Overview

Sakthi Hackathon 1.0 is a Premier National Level Technical Hackathon hosted by Dr. Mahalingam College of Engineering and Technology by the Student Research Council (SRC) in association with a convener committee. The origin of the event was articulated by the management's idea to outsource inherent operational problems faced by children companies under Sakthi Group of Companies that include Sakthi Auto Components Limited, Sakthi Sugars Limited and explore potential solutions that could improve working efficiency. It was aimed to crowdsource the industry relevant problem within the young student community to obtain innovative solutions. The event was designed with multiple evaluation rounds to ensure quality and fairness at every stage. Each round tested participants' solutions against dynamic parameters such as innovation, creativity, feasibility and impact, thereby encouraging teams to refine and strengthen their ideas progressively.

To streamline operations, a dedicated web-portal was developed and deployed serving as the central hub for participant onboarding, team management, problem statement access, and real-time announcements. The event received an overwhelming response with over 1,000 team registrations representing a diverse pool of over 3,000 students from various colleges and backgrounds. The event was structured to span across multiple phases over a two-month period, concluding in an intense 24-hour on-campus hackathon at MCET. During this final stretch, teams worked tirelessly, demonstrating their endurance, teamwork, and problem-solving skills under pressure.

The problem statements were launched on 15th of June, 2025, consisting 25 distinct problem statements sourced from Sakthi Group of Companies, the statements opened doors for implementing cutting-edge Industry 4.0 trends along with aligning to the United Nations' Sustainable Development Goals (SDGs). The nature of these problem statements was deliberately diverse and multidisciplinary, ranging from smart manufacturing, digital transformation, automation, and data analytics to sustainability, waste management, and renewable energy applications. Each challenge was carefully crafted to reflect real-world industrial pain points while retaining enough openness to stimulate academic creativity and innovation.

Subsequently the initial registrations were opened, with teams registering for the first round by choosing their preferred problem statement from the pool. Once registered, teams were given a preparatory window of over a month, until the 7th of July, to research, brainstorm, and develop their proposed solutions. During this period, participants were expected to go beyond surface-level ideas by analyzing the technical feasibility, potential impact, and scalability of their approaches. At the end of this stage, every team was required to submit a detailed presentation document outlining their concept, methodology, and expected outcomes. These submissions were then considered for round-1 participation and carefully reviewed by an internal faculty evaluation committee, which assessed the proposals on dimensions such as innovation, problem relevance, clarity of articulation, and alignment with industrial objectives.

The round-1 shortlisted teams were promoted to next round of the event, here the participants were required to submit additional document underlining the technical rigor and video details of their existing prototype within the deadline of 25th July, 2025. These documents were then analyzed by

a reviewer committee based on problem definition, execution quality, technical rigor, scope of the solution; shortlisting teams for the 24-hour finale event.

Finally, the results of Round 2 were announced on 1st August, 2025, formally inviting the shortlisted teams to participate in the much-anticipated 24-hour grand finale held at the campus of Dr. Mahalingam College of Engineering and Technology (MCET). The finalist teams confirmed their participation through the successful payment of a nominal registration fee of ₹1000. The grand finale commenced with a formal inauguration ceremony, which set an inspiring tone for the 24-hour hackathon. The event began by welcoming the finalist teams and appreciating their consistent dedication, creativity, and perseverance demonstrated throughout the earlier rounds. The ceremony was graced by the presence of Dr. A. Senthil Kumar, Vice-Principal, and Dr. R. Sudhakar, Associate Dean of Student Research, Dr. Senthil Kumar delivered the welcome address, acknowledging the hard work of the participants and encouraging them to make the most of the finale experience. Dr. Sudhakar, in turn, outlined the event guidelines and expectations, ensuring clarity and fairness in the proceedings.

The finale was scheduled from 10:30 AM on 13th August, 2025, to 10:30 AM on 14th August, 2025. During the event, finalists were tasked with refining, enhancing, and validating their initial solutions under the guidance of seasoned industry experts from the Sakthi Group of Companies. These experts conducted periodic review checkpoints, providing constructive feedback and ensuring that every project maintained a strong balance of innovation, implementation detail, and industrial feasibility. This iterative feedback mechanism helped participants align their concepts with real-world standards of scalability, sustainability, and technical depth.

Following the completion of the 24-hour hackathon, the Valedictory Ceremony was held on 14th August, 2025, at 11:00 AM, marking the official conclusion of Sakthi Hackathon 1.0. Prior to the ceremony, the final judgment process commenced at 8:00 AM, during which the expert panel from the Sakthi Group of Companies carefully reviewed the refined solutions. This evaluation was the outcome of a rigorous and iterative process, where teams had received continuous feedback and mentoring throughout the hackathon to fine-tune their projects. The final assessment was conducted on the basis of innovation, technical soundness, scalability, industrial applicability, and alignment with sustainability goals, ensuring that the winning solutions demonstrated both creativity and real-world relevance.

The Valedictory Ceremony was further elevated by the presence of several distinguished dignitaries, whose participation underscored the importance of the event. The occasion was graced by Mr. Vikranth Sathyamoorthy, Vice President of the Department of Guidance, Government of Tamil Nadu, whose insights emphasized the role of innovation-driven hackathons in shaping the future workforce of the state. Also present was Mr. Krishnaraj Nataraj, an illustrious alumnus of the 2006 batch and currently serving as Engineering Manager at Bosch, Coimbatore. The academic leadership of Dr. P. Govindasamy, Principal, Dr. A. Senthil Kumar, Vice-Principal, and Dr. R. Sudhakar, Associate Dean of Student Research, added further prestige to the event.

The ceremony began with a welcome address by Dr. R. Sudhakar, Associate Dean of Student Research, who highlighted the key moments of the event and warmly welcomed the chief guests, jury members, and participants. This was followed by the presidential address by Dr. P. Govindasamy and the event addresses by both chief guests. During the awards session, a total of eight prizes were presented: three for the top winners and five consolation prizes to encourage student efforts. The first prize carried a grand sum of ₹1,00,000, the second prize ₹50,000, and the third prize ₹25,000, while each consolation prize carried ₹5,000, bringing the total prize pool to ₹2,00,000. Thus the event concluded with tangible solutions to

industry-facing problems, offering implementable pathways to improve operational efficiency, thus fulfilling the core objective of the hackathon and leaving a strong impression for future editions.

Organizing Committee

The Sakthi Hackathon 1.0 was organized by the Student Research Council (SRC), A partially student led technical organization whose vision is towards cultivating research culture within the students of Dr.Mahalingam College of Engineering & Technology and produce tangible outcome that include Intellectual Property Rights, journal publications. The organization in association with faculty convener committee planned and architected the smooth functioning of the event.

Sl.No	Committee Name	Name of the Faculty	Designation & Dept.	Role
1.	Software Team (Portal)	Mr. M. Arun	AP(SS)/AIDS	Convener
		Dr. J. Thimmia Raja	AP(SS)/IT	Member
		Mr. J. Arthur Vasanth	AP/EEE	Member
		Mr. A. Shafeek	AP/CS	Member
2.	Invitation, Brochure & Banner	Dr. J. Thimmia Raja	AP(SS)/IT	Convener
		Dr. N. Balamurali	AP/EEE	Member
		Mr. J. Arthur Vasanth	AP/EEE	Member
		Mr. A. Shafeek	AP/CS	Member
3.	Out Reach & Marketing	Mr. M. Ganeshan	AP/EEE	Convener
		Dr. R. S. Venkatesan	AP(SS)ECE	Member
		Mrs. V. Shanmugaveni	AP(SS)/Cy.Sec	Member
		Mr. J. Dhyaneswaran	AP/SS/AIDS	Member
		Ms. C. Devipriya	AP(SS)/CSE	Member
		Ms. D. C. Kiruthikka	AP(SS)IT	Member
		Mr. T. Selvakumar	AP(SS)AIML	Member
		Mr. R. Kanagasabapathy	AP(SS)/IT	Member
4.	ITes	Mr. P. Boopathi Rajan	AP(SS)/CSE	Convener
		Mr. G. Karthikeyan	AP/EIE	Member
5.		Dr. R. Vivekanandan	Prof/AIML	Convener

	Problem Evaluation	Dr. J. Ramprasath	ASP/AIDS	Member
		Dr. S. Ayyappan	AP/SS/IT	Member
		Dr. K. Hariharan	ASP/Mech	Member
		Dr. M. Jayaraj	AP(SG)/Mech	Member
		Mr.M.Gideon Ganesh	AP(SS)/Mech	Member
		Dr.P.Harihara Sakthi Sudhan	ASP/Mech	Member
		Dr.T.Saravana Kannan	ASP/Auto	Member
		Dr.K.Sakhi Vadivel	AP(SG)/Auto	Member
		Mr.C.Radhakrishnan	AP(SS)/Auto	Member
6.	Boot Camp	Mr. M. Gideon Ganesh	AP(SS)/Mech	Member
		Dr. P. Harihara Sakthi Sudhan	ASP/Mech	Member
		Dr. T. Saravana Kannan	ASP/Auto	Member
		Dr. K. Sakthi Vadivel	AP(SG)/Auto	Member
		Mr. C. Radhakrishnan	AP(SS)/Auto	Member
		Dr. N. Balamurali	AP/Mech	Convener
		Dr. M. Jayaraj	AP(SG)/Mech	Member
		Mr. K. Vijayakkannan	AP(SS)/Mech	Member
		Dr. P. Harihara Sakthi Sudhan	ASP/Mech	Member
		Dr. T. Saravana Kannan	ASP/Auto	Member
		Mr. V. D. Tamilarasan	AP/Auto	Member
7.	Photo & Video	Mr. S. Dineshkumar	AP/Civil	Convener
		Mr. S. Senthil Prabhu	AP(SS)/CSE	Member
		Mr. P. Sowrimuthu	Network Engineer	Member
8.	Press and Media	Mr. S. Nagarajan	PRO	Convener
		Ms. Vilva Viruksha	AP/Tamil	Member
9.		Mr. M. Padmanaban	AP(SS)/Mech	Convener

	Stage Management	Dr. J. Bavithra	AP/CSE	Member
		Mr. K. Kanagasabapathy	AP(SS)/AIDS	Member
10.	Certificate Printing, Prize Distribution	Dr. K. Rameshkumar	AP(SG)/EEE	Convener
		Mr. T. Muthubharathi	AP/EEE	Member
		Mr. S. Syed Masoodhu	AP(SS)/Civil	Member
		Mr. A. Manikandan	AP(SS)/Civil	Member
11.	Hall Management, Guest, Hospitality, Hostel Booking	Mr. P. E. Kamalakkannan	AP/EEE	Convener
		Dr. R. Ramesh	AP(SG)/Maths	Member
		Mr. R. B. Rajeskkumar	AP/Auto	Member
		Mr. N. Dhamodharan	AP/Auto	Member
12.	Seating Arrangement	Dr. R. Ramesh	AP(SG)/Maths	Convener
		Mr. N. Senthilnathan	LA/VLSI	Member
		Mr. S. Ragu Prasath	LA/Auto	Member
		Mr. K. Malaiyandisami	LA/EEE	Member

The execution of the event was structured around a well-defined organizational hierarchy, combining student initiative under the Student Research Council (SRC) with oversight from the faculty convener committee. Multiple sub-committees were constituted, each with specific responsibilities such as software and portal management, outreach and marketing, problem evaluation, boot camp coordination, and stage management. This division of work ensured that all operational aspects of the hackathon were handled systematically, minimizing logistical challenges and enabling smooth coordination across departments. The faculty members serving as conveners and coordinators provided strategic direction, while student representatives contributed actively in the design and implementation of processes. This collaborative framework established a balance between academic governance and student-led execution, ensuring both accountability and innovation in the organization of the event.

To manage an event of this scale, the organizing committee adopted a distributed model of responsibilities, creating sub-groups that focused on key domains such as technical coordination, portal and software management, outreach and publicity, logistics, evaluation, and stage management. While students spearheaded the execution of many of these functions, faculty mentors provided oversight and guidance, ensuring that the operations remained aligned with institutional standards and industry expectations. This hybrid model balanced creativity with accountability, enabling the hackathon to progress smoothly across all stages, from problem statement release to the final valedictory session.

The collaborative structure of the organizing committee not only guaranteed the seamless flow of the event but also served as a learning platform for students, allowing them to gain practical exposure to project

management, teamwork, and leadership in a professional setting. By integrating student initiative with faculty supervision, the committee set a replicable framework for future large-scale academic–industry engagements within the institution.

Problem Statement Launch

On June 15th, 2025, a set of 25 unique problem statements was unveiled, curated in collaboration with Sakthi Group of Companies. The initiative was structured to provide students with opportunities to engage in applied research and innovation, targeting both industrial and societal needs. By combining the principles of advanced Industry 4.0 practices with the global framework of the United Nations' Sustainable Development Goals (SDGs), the event ensured that the problem statements would remain relevant to emerging technological trends while also addressing long-term sustainability priorities. The collection was intentionally broad, encouraging participation from multiple academic disciplines and creating scope for solutions that draw upon engineering, computer science, life sciences, and management perspectives.

- Industry 4.0 – Digitization
- Industry 4.0 – Smart Utilities Monitoring
- Industry 4.0 – Smart Maintenance
- Industry 4.0 – Digital Quality Assurance
- Industry 4.0 – AI for Sustainability
- Industry 4.0 – Smart Manufacturing
- Renewable / Sustainable Energy
- IoT and AI in Everyday Life
- Green and Clean Technologies
- Agriculture, Food Tech and Rural Development

The event was designed to encourage student teams to consider both technical feasibility and real-world deployment while working on their problem statements. The thematic areas represented urgent challenges faced by industries today, such as energy optimization, predictive maintenance, and sustainable production methods, while also linking to broader societal issues like food security, rural development, and environmental preservation. Registrations were open until June 30th, 2025, and during this period the initiative attracted wide participation from institutions across India. A total of 1000 teams, representing more than 3000 students, formally registered. The diversity of participation—spanning engineering, technology, agriculture, and allied sciences—reflected the multi-disciplinary nature of the challenges and highlighted the growing interest of the student community in addressing problems at the intersection of technology, sustainability, and societal impact.

Round Details

The event in total comprised three rounds, including the grand finale. The first two rounds were conducted online, where participating teams were required to submit various documents through the designated web portal. In each round, the submissions included both a structured, well-formatted document and a video presentation, outlining the team's understanding of the problem statement, the proposed scope, methodology, technical approach, and the overall feasibility of their solution. These submissions were carefully reviewed by our internal faculty reviewer committee, who evaluated the clarity, innovation, depth of research, relevance, and practicality of the ideas presented. The review process was designed to ensure that only well-prepared, thoughtfully articulated, and technically sound solutions progressed. Based on this rigorous multi-stage evaluation, the most promising teams demonstrating both creativity and feasibility were shortlisted and advanced to the finale for further presentation and discussion.

Round – 1: Preliminary Round

The first round of the event subsequently began with the launch of the problem statements, wherein students were instructed through the website to select their preferred problem. Upon registration, participants were provided with nearly a one-month preparatory window, lasting until 7th July 2025, to submit a Word document outlining their proposed solution. The document was expected to cover key aspects such as methodology, technical approach, potential impact, and benefits of the solution. To ensure uniformity, a structured template for the submission was also made available on the web portal.

By the completion of the submission deadline, a total of 517 documents were received from the registered teams. Each submission was subjected to a structured evaluation by the internal faculty reviewer committee. The review process focused on critical dimensions such as the clarity and accuracy of the problem definition, the alignment of the proposed solution with industry requirements, the feasibility of implementation, and the overall scope and impact of the idea.

Faculty Reviewer Committee – Round 1

S.No.	Name	Designation
1	Dr. P. Vivekanandan	HoD/AIML
2	Dr. J. Ramprasath	HoD/AIDS
3	Dr. S. Ayyappan	ASP / Mech
4	Dr. K. Hariharan	ASP / Mech
5	Dr. M. Jayaraj	AP(SG) / Mech
6	Mr. M. Gideon Ganesh	AP(SS) / Mech
7	Dr. P. Harihara Sakthi Sudhan	ASP / Mech
8	Dr. T. Saravana Kannan	ASP / Auto
9	Dr. K. Sakthi Vadivel	AP(SG) / Auto
10	Mr. C. Radhakrishnan	AP(SS) / Auto
11	Dr. N. Bala Murali	AP / Mech
12	Dr. J. Thimmia Raja	AP(SS) / IT

The reviewer committee shortlisted a total of 475 teams based on critical judging criterias, the shortlisted teams were promptly informed about their selection and instructed to prepare for round-2.

Round – 2: Selection Round

The second round primarily focused on feasibility and practicality. In this stage, the shortlisted students from Round-1 were instructed to produce two essential submissions: a detailed PowerPoint presentation outlining the complete solution flow and a short video demonstrating their existing prototype in action. The round officially commenced on 11th July 2025, with the portal made accessible exclusively to Round-1 qualifiers.

As part of the evaluation, teams were required to provide:

- Detailed design and approach explanation, highlighting the underlying concept and rationale.
- Workflow diagrams, system design, and methodology, to showcase the overall architecture and execution plan.

On completion of the submission deadline by 25th of July, 2025, the internal faculty review panel assessed these submissions on the basis of technical soundness, practical implementation feasibility, and clarity of design flow. The structured format of this round ensured that both the conceptual strength and the real-world applicability of the projects could be effectively gauged.

Faculty Reviewer Committee – Round 2

S.No	Name	Designation
1	Dr. D. Nathan	Mech
2	Mr. Sreejith S. Nair	Mech
3	Mr. J. Dhyaneswaran	IT
4	Mr. R. Govindaraj	IT
5	Dr. N. Shanmuga Sundaram	Mech
6	Dr. M. Mariappan	Civil
7	Mr. N. Karthikeyan	Civil
8	Mr. K. Vijayakkannan	Mech
9	Dr. S. Bharathi	ECE
10	Dr. C. Moorthy	ECE
11	Mr. A. Shafeek	ECE
12	Dr. S. K. Ashok	Auto
13	Dr. S. Nithya	AI & DS
14	Dr. S. Ponni @ Sathya	AI & DS
15	Dr. Balakrishnan	AI & DS
16	Mr. M. Mahendran	Auto
17	Mr. A. Manikandan	Civil
18	Mr. M. Sudharsanan	Civil
19	Mr. M. Ponmurugan	Auto

From the pool of submissions, the reviewers shortlisted a total of 61 teams, comprising a balanced proportion of 10 internal teams and 51 teams from other institutions, thereby ensuring equal opportunity and fair representation. The selected teams were officially notified and subsequently requested to confirm

their participation in the grand finale by completing the registration process with a nominal fee of ₹1000. As part of the event's commitment to supporting participants, all finalists were provided with complete accommodation, along with food and beverages, for the entire duration of the event.

Consolidated Registration Count by Each Round

Metric	Count
Total Event Registration	1000
Total document submission for Round – 1	517
Total shortlisted teams for Round - 2	475
Total document submission for Round – 2	321
Total shortlisted teams for Finale	61

Problem Statement-wise Total Registration Count

PS_ID	Problem Title	Count
SH01	Digitization of DISA Production Records	34
SH02	Automation of Breakdown Intimation Process	17
SH03	Real-Time Stock Alert System for Rough Casting Warehouse	49
SH04	Automation of Cutting Tool Issue and Receipt Management	7
SH05	Smart Monitoring System for Returnable Packing Box Lifecycle	45
SH06	Digital Monitoring System for Raw and Mixed Coolant Consumption	16

SH07	Digital Quality Control & Assurance Document System for Machining Sections	3
SH08	Centralized Backup and Access System for Machine Shop Programs and PLC Logic	5
SH09	Predictive Life Monitoring and Notification System for Machine Critical Spares	18
SH10	Smart Notification System for Preventive and Predictive Maintenance in Manufacturing	55
SH11	Digital Application for Product Layout Inspection – Plan vs Actual Tracking	9
SH12	Water Monitoring and Replenishment Tracking System for Achieving Water Positivity Standards	28
SH13	AI-Driven Carbon Net Zero Tracking and Optimization System for Manufacturing Operations	34
SH14	Automated Tooling Management and Digital Daily Inspection Recording System	6
SH15	Automated Pattern History Monitoring and Tooling Revalidation Trigger System	6
SH16	Digital Tracking System for New Product Development (NPD) Sample Records	12
SH17	AI-Driven Alloy Addition System Based on Spectrometer Results and Process Capability	8
SH18	Digital Documentation and Record Management	49
SH19	Digital Project Management Tracker with Plan vs Actual Monitoring and Delay Escalation System	19
SH20	Innovative Reuse Ideas and Buyer Identification for Furnace Slag Generated in Foundries	22
SH21	IoT and AI in Everyday Life	270
SH22	Green and Clean Technologies	52

SH23	Agriculture, FoodTech & Rural Development	137
SH24	Robotics and Drones	46
SH25	Renewable/ sustainable Energy	53

Theme-wise Total Registration Count

Theme	Count
Industry 4.0 – Digitization	196
Industry 4.0 – Smart Utilities Monitoring	61
Industry 4.0 – Smart Maintenance	78
Industry 4.0 – Digital Quality Assurance	9
Industry 4.0 – AI for Sustainability	62
Industry 4.0 – Smart Manufacturing	14
Renewable / Sustainable Energy	53
IoT and AI in Everyday Life	270
Green and Clean Technologies	52
Agriculture, Food Tech & Rural Development	137

College-wise Count in Finale

S. No	College Name	Count
1.	Bannari Amman Institute of Technology	10
2.	Sri Krishna College of Engineering and Tech	1
3.	Hindusthan College of Engineering and Tech	1
4.	Sona College Of Technology	1
5.	Dr. MCET	11
6.	PSG Institute of Tech and App. Research	6

7.	Chennai Institute Of Technology	2
8.	Sri Ramakrishna Engineering College	3
9.	Nandha college of Technology	1
10.	Sri Eshwar College of Engineering	3
11.	Pace institute of technology and science	2
12.	Rajeev Ghandhi memorial college	1
13.	Kongu Engineering college	2
14.	Dhirajlal Gandhi College of Technology	1
15.	Erode Sengunthar engineering college	1
16.	Rathinam Technical Campus	3
17.	Meenakshi Sundararajan Engg college	1
18.	KCG College of Technology	3
19.	Dr.N.G.P	1
20.	Coimbatore Institute of Technology	2
21.	Sri Venkateswara College of Engineering	1
22.	St. Joseph's Institute of Technology	1
23.	Vellore Institute of Technology, Chennai	1
24.	Kumaraguru college of technology	1
25.	Sri Sai Ram Engineering College	1
26.	R.M.D Engineering College	1
27.	Thiagarajar college of engineering	1

Finale Round – Live Hackathon at MCET

The finale of Sakthi Hackathon 1.0 marked the grand culmination of a series of innovation-driven rounds organized by the Student Research Council (SRC) in association with the Convenor Committee of Dr. Mahalingam College of Engineering and Technology (MCET), Pollachi. The live 24-hour finale was hosted at the MCET campus in collaboration with the Sakthi Group of Companies. The event brought together 61

finalist teams selected from hundreds of participants, who came to showcase their creativity, technical expertise, and ability to solve real-world problems under pressure. With 25 problem statements across 10 industrial themes, the finale created an electrifying atmosphere of collaboration, competition, and innovation. The event not only tested technical skills but also resilience, teamwork, and time management, as participants worked tirelessly for 24 hours across 2 days to design and demonstrate their solutions before the expert juries.

Day 1: Inauguration and Initial Reviews

The finale of Sakthi Hackathon 1.0 began with a formal inauguration ceremony at the MCET campus. The session was graced by the presence of the Vice Principal Dr.A.Senthil Kumar and Associate Dean Student Research Dr.R.Sudhakar and the, who addressed the gathering and motivated the participants to make the most of this unique opportunity. After the inauguration, the student teams completed their registration process and received their official ID cards, which marked their entry into the 24-hour finale. Once registered, the teams moved to their allocated venues and immediately began working on the assigned problem statement.

Dr. R. Sudhakar, Associate Dean (Student Research), and Dr. A. Senthil Kumar, Vice Principal, graced the dais

Dr. A. Senthil Kumar, Vice Principal, Delivering Welcome Address

Dr.R.Sudhakar, Associate Dean Student Research, Introducing the event and its guidelines

NSS Volunteers Issuing Event ID cards for participants

Throughout the first day, jury members from the Sakthi Group of Companies, together with faculty members from MCET, actively engaged with the participants by visiting their respective venues. These interactions were not just formal assessments but meaningful discussions where experts carefully examined the progress of each team. The jury offered technical advice, suggested alternative approaches, and

encouraged participants to think critically about the scalability and feasibility of their solutions. This guidance helped teams refine their ideas and align their projects more closely with real-world applications.

Two formal review sessions were scheduled on Day 1, during which each team presented the status of their prototypes to the panel. These reviews served as important checkpoints, ensuring that every group was moving in the right direction and that the solutions being developed were technically sound and innovative. The feedback received during these sessions was highly valuable, as it highlighted strengths while also pointing out areas that required further attention.

By the end of Day 1, the atmosphere was one of intense focus and collaboration. Participants were fully immersed in coding, testing, and problem-solving, often working in close coordination with their teammates to overcome challenges. The day concluded with teams making significant progress, laying a strong foundation for the rigorous final day that awaited them.

Initial phase of project development and evaluation

Day 2: Final Review and Jury Evaluation

Day 2 of Sakthi Hackathon 1.0 began with the much-awaited final review session, marking a crucial phase of the competition. Teams once again stood before the jury to present their prototypes, this time with clear emphasis on the improvements made after Day 1. The session tested not only the technical skills of participants but also their ability to learn, adapt, and implement expert feedback within a short span of time.

The morning hours were spent in intense refinement and polishing of solutions. Participants focused on stabilizing their prototypes, debugging persistent issues, and ensuring seamless functionality across all core features. For many teams, this phase also involved integrating additional enhancements suggested by the jury on Day 1, thereby showcasing their responsiveness and problem-solving abilities. Despite visible signs of fatigue from having worked overnight, students displayed remarkable enthusiasm and determination, demonstrating the resilience that a 24-hour live hackathon demands.

As the day advanced, the atmosphere grew charged with anticipation. Teams meticulously prepared for the grand jury evaluation, where they were required to give a comprehensive presentation of their projects. Each team had to walk the jury through their problem statement, solution approach, technical architecture, and implementation strategy, followed by a live demonstration of the working prototype. The presentations culminated with an interactive Q&A session, where the jury challenged participants with questions that tested not only the technical robustness of their solutions but also their real-world feasibility, scalability, and social impact.

The jury panel, consisting of industry experts from the Sakthi Group of Companies alongside faculty members from MCET, brought in diverse perspectives that enriched the evaluation process. They assessed projects on parameters such as innovation, usability, technical depth, execution efficiency, and sustainability of the idea. Interactions were lively and insightful, while some teams received appreciation for their creativity and innovation, others were pushed to think critically about practical challenges in deploying their ideas outside the hackathon setting.

By the afternoon, after several rounds of presentations, demonstrations, and discussions, the jury consolidated their evaluations and finalized the list of winners. The session not only marked the conclusion of the competitive phase but also reflected the spirit of collaborative learning and innovation, where every participant gained valuable experience, regardless of the outcome.

Final evaluation

Valedictory Ceremony and Prize Distribution

The Valedictory Ceremony of Sakthi Hackathon 1.0 was held on August 14th, 2025, at 11:30 AM. It was a grand and memorable occasion that marked the successful completion of two days of innovation, collaboration, and problem-solving. The ceremony commenced with a Welcome Address delivered by Dr. R. Sudhakar, Associate Dean (SR), who warmly greeted the dignitaries, participants, mentors, and organizing members.

This was followed by the Presidential Address by Dr. P. Govindasamy, Principal, Dr. Mahalingam College of Engineering & Technology. In his remarks, he emphasized the role of hackathons in nurturing creativity, entrepreneurial spirit, and technical excellence among students. He also acknowledged the dedicated efforts of all participants, mentors, and organizers, noting that their collective contributions had made Sakthi Hackathon 1.0 possible and impactful. The event then featured addresses by the distinguished Chief Guests.

Er. Krishnaraj Nataraj**,** alumnus of the 2002–2006 batch and Engineering Manager at BOSCH, Coimbatore, shared his formative experiences as a student. He recalled participating in his very first hackathon, where his team built a line-follower robot. He described the technical hurdles they encountered and how the project demanded a focus on both speed optimization and sensor precision. He explained that this hands-on project became a turning point in his engineering journey, demonstrating the practical application of classroom knowledge and the importance of perseverance. Connecting the experience to his current role at BOSCH, he highlighted how early exposure to problem-solving prepared him for the challenges of leading engineering teams in a global company.

Mr. Vikranth Sathyamoorthy**,** Vice President, Department of Guidance, Government of Tamil Nadu, spoke about the state's evolving startup ecosystem. He contrasted the limited opportunities available in the past with the wide array of resources and support structures that now exist for entrepreneurs in Tamil Nadu. He highlighted the proactive role of the government in enabling innovation and cited the example of Practo, a health-tech platform, to illustrate how powerful ideas can transform into scalable businesses. He emphasized that while founders play a crucial role, the strength of a venture often lies in the originality and relevance of the idea itself. Addressing the students, he urged them to identify pressing needs, work on innovative solutions, and take advantage of the present ecosystem, which he described as well-positioned to nurture visionary ideas into successful enterprises.

Dr.R.Sudhakar, Associate Dean Student Research, welcoming the guests and participants

Dr.P.Govindasamy, Principal, delivering the presidential address

Chief Guest Er. Krishnaraj Nataraj, sharing his professional experience and insights

Chief Guest Mr. Vikranth Sathyamoorthy sharing insights on Start-ups and Emerging Opportunities

A participant feedback session followed, during which students enthusiastically shared their transformative experiences from the 24-hour innovation marathon. They highlighted how the hackathon provided them with a platform to translate ideas into practical solutions, an opportunity to sharpen their teamwork, leadership, and time-management skills, and a chance to experience the perseverance required to tackle real-world challenges. The candid feedback also gave the organizing team valuable insights that would help further refine and enrich future editions of Sakthi Hackathon.

MCET Student Mr.Rizwan Ahamed sharing his event participation experience

Student Mr. Dhayanithi Arumugam, sharing his participation experience

As the ceremony progressed to the much-awaited Prize Distribution segment, the atmosphere in the hall grew more spirited and anticipatory. This moment served as a culmination of the entire event, dedicated to recognizing the innovative approaches, technical depth, and persistence demonstrated by the participants. The distribution of prizes not only honoured the winning teams for their noteworthy solutions but also reflected the broader objective of the hackathon-to encourage problem-driven thinking and applied innovation among students. In addition to rewarding the winners, the session acknowledged the collective effort of all participating teams whose contributions underscored the event's collaborative spirit and academic value.

The Sakthi Hackathon 1.0 has been a structured journey of ideation, experimentation, and problem-solving, offering students a practical platform to engage with real-world challenges originating from the industry. Across the various stages of the competition, participants were consistently evaluated on parameters such

as creativity, feasibility, technical execution, and impact, ensuring that recognition was closely tied to both originality and applicability. The prize distribution, therefore, was not merely symbolic but an affirmation of the tangible outcomes produced during the course of the event.

Beyond the individual achievements of the winners, the ceremony highlighted the value of collective participation, where every team contributed in shaping the intellectual ecosystem of the hackathon. By bringing forward diverse perspectives and approaches, the participants collectively reinforced the hackathon's role as a bridge between academic learning and industrial relevance. This balance of recognition and inclusivity gave the closing ceremony its sense of completion, leaving participants with a deeper understanding of innovation as both a competitive and collaborative endeavour.

Prize Distribution

The Prize Distribution ceremony stands as a moment of pride, where we acknowledge and celebrate the hard work of our participants. These awards are not merely recognitions of victory, but a celebration of perseverance, teamwork, and the drive to create meaningful solutions. The prize winners represent the best of innovation and commitment, and their achievements serve as an inspiration for all aspiring innovators.

Prize	Cash Received	Team Name	College Name	Student Name
1st Prize	Rs. 1,00,000	Agile Avengers	R.M.D Engineering College	Krishna Vishwa C B
				Navami Krishna R
				Madhumita B
				Jaibalaji S T
2nd Prize	Rs. 50,000	The Stratos	PSG iTech	Priya Dharshini D
				Karthick V
				Nithika Murugan
3rd Prize	Rs. 25,000	Quantum Dots	Dr. Mahalingam College of Engineering & Technology	Arundharsaun A
				Yaswanth S.S
				Manoj Kumar.L
				Aswin.S

Team Agile Avengers from R.M.D. Engineering College receiving the First Prize of ₹ 1 Lakh

Team Stratos from PSG Institute of Technology and Applied Research receiving the Second Prize of ₹ 50,000

Team Quantum Dots from Dr. Mahalingam College of Engineering & Technology receiving the Third Prize of ₹ 25,000

Apart from the winners, the following 5 teams were awarded with a Consolation Prize of Rs. 5,000

S. No.	Team Name	College Name	Members
1.	Dream Weavers	Sri Krishna College of Engineering	Jayaprakash A
			Keerthika S
			Padmashree R
2.	IdeaForage	Coimbatore Institute of Technology	Harsshini K T
			Indhumathi A
			Mitraa B
			Tapasvini S
3.	Pixel n Bytes	Karpagam College of Engineering	Guna Chandru
			Jeevith K S
			Kishanth G
			Harini M
4.	Hawks	Pace Institute of Technology	Chevuri Pruthvi
			Atmakuri Sree Sanjay
			Pulugu Revanth Ram Sai Reddy
5.	512D	Bannari Amman Institute of Technology	Ragul S
			Dinesh R
			Jisnu S

The event concluded with the Vote of Thanks proposed by Mr. A. Shafeek, Assistant Professor (SS)/ECE, who expressed gratitude to the chief guests, principal, faculty, participants, mentors, and organizing team for their invaluable support in making Sakthi Hackathon 1.0 a grand success.

The Vote of Thanks was delivered by Mr. A. Shafeek, AP(SS), and the event concluded with the National Anthem

The valedictory ceremony thus marked a fitting conclusion to two days of relentless innovation, setting the stage for even greater milestones in the future.

Appendix

Event Brochures

INSTITUTION'S INNOVATION COUNCIL (Ministry of MSE Initiative)

Sakthi Group

Dr. MAHALINGAM MCET | Dr. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY

COUNSELLING CODE 2706

A++ ACCREDITED NAAC

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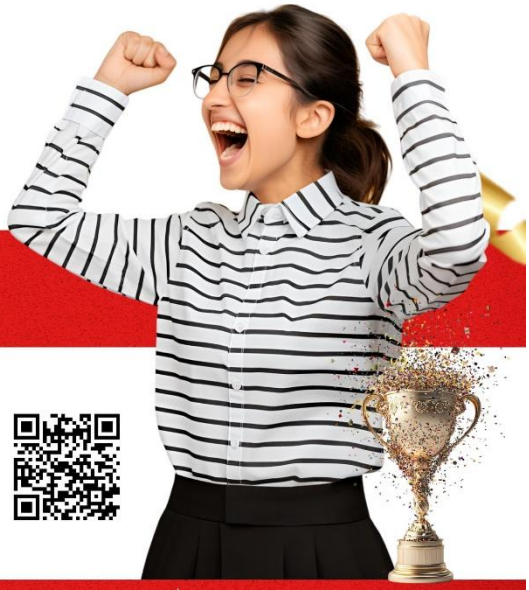
Great Place To Work. Certified 2025 INDIA

SAKTHI Hackathon 1.0

Inter College event

24 Hours National Level Hackathon



1st Prize Rs. 1 Lakh

2nd Prize Rs. 50,000

3rd Prize Rs. 25,000

Themes

Industry 4.0 - Digitization | Industry 4.0 - Smart Utilities Monitoring
Industry 4.0 - Smart Maintenance | Industry 4.0 - Digital Quality Assurance
Industry 4.0 - AI for Sustainability | Industry 4.0 - Smart Manufacturing
Renewable/ sustainable Energy | IoT and AI in Everyday Life
Green and Clean Technologies | Agriculture, Food Tech & Rural Development

Dates to Remember

Problem statement launch - 13.06.25 | Team Registration - 16.06.25 to 30.06.25
Last date for uploading documents - 25.07.25 | (Theme Description, PPT, Workflow Video)
Result Announcement - 30.07.25
Selected Team Registration with Registration Fees: Rs. 1000 - 31.07.2025 to 02.08.2025
24 Hours Hackathon - 13.08.25 from 10.00 A.M to 14.08.25 10: A.M
Result Announcement & Prize Distribution - 14.08.25 from 10.30 A.M

Faculty Co-Ordinators
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Dr. N. BalaMurali - 8675633163
Mr. A. Shafeek - 9633822344
Mr. J. Arthur Vasanth - 6369537760

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