



**AVIT**  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY



VINAYAKA MISSION'S  
RESEARCH FOUNDATION  
(Deemed to be University under section 3 of the UGC Act 1956)



Accredited by NAAC



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**Department of Electrical and Electronics Engineering  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
INSTITUTION INNOVATION COUNCIL (IIC) – AVIT**

<p><b>Any one social media Url Link</b> Facebook/Twitter/Instagram/LinkedIn</p>	<p><a href="https://www.facebook.com/photo/?fbid=954273026826063&amp;set=a.561293142790722">https://www.facebook.com/photo/?fbid=954273026826063&amp;set=a.561293142790722</a></p>		
<p><b>Program Driven by</b> IIC Calendar Activity/ MIC Driven Activity/ Celebration Activity/Self driven activity</p>	<p>IIC calendar activity</p>		
<p><b>Event Title</b></p>	<p>Session on Problem Solving and Ideation Workshop</p>		
<p><b>Resource Person</b></p>	<p>Mr.SJanardhanam,  Training Officer, Ministry of Skill Development and Entrepreneurship, Govt. of India  .Mr. Sivasankaran I, Tamilnadu Smart and Advanced Manufacturing Centre, A Joint Initiative &amp; the Government of Tamil Nadu and Siemens Industry Software India, Pvt. Ltd.</p>		
<p><b>Academic year</b></p>	<p>2024-2025</p>	<p>Quarter</p>	<p>I</p>
<p><b>Program Type</b> Level 1 - Expert Talk/ Exposure Visit/ Mentoring Session (2 to 4 Hours)  Level 2 – Conference / Exposure Visit / Seminar / Workshop (5 to 8 Hours)  Level 3 – Bootcamp/ Competition/ Demo Day/ Exhibition / Workshop (9 to 18 Hours)  Level 4 – Challenges/ Hackathon/ Tech Fest (Greater than 18 hours)</p>	<p>Level 2– Worksop</p>		
<p><b>Program Theme</b> IPR &amp; Technology Transfer / Innovation &amp; Design Thinking / Entrepreneurship &amp; Startup / Pre-Incubation &amp; Incubation Management</p>	<p>Innovation and Design Rhinking</p>		
<p><b>Start date &amp; End Date</b> (DD/MM/YYYY)</p>	<p>29-11-2024</p>	<p>29-11-2024</p>	
<p><b>Duration of the activity (in Mins) &amp; Start Time &amp; End Time</b></p>	<p>Duration: 300 Minutes</p>	<p>Start Time: 9:00 AM</p>	<p>End Time: 3:00 PM</p>



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<b>Participants</b>	Students: 32	Faculty: 10	External: 08
<b>Mode of session</b> (online / offline) * Online Video Url compulsory	Offline		
<b>Event Organizer / Coordinator</b> Faculty Name / Department / Designation	Dr.L.Chitra, Professor & HoD, Department of Electrical & Electronics Engineering, AVIT		
<b>Target Participants</b>	Students, Faculty		
<b>Outcome</b>	Participants gained in-depth knowledge of problem solving and ideation		
<b>Benefits in terms of learning/skill/Knowledge obtained ( 150 letters only)</b>	The concept of a <b>Digital Twin</b> in smart manufacturing involves creating a virtual replica of physical assets, processes, or systems to simulate, monitor, and optimize performance in real-time. Knowledge obtained from studying this technology includes understanding how it enhances predictive maintenance, reduces downtime, and improves operational efficiency by offering insights into equipment performance and production processes.		
<b>Expenditure Amount, If any</b>	6000		



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### Report:

A workshop on **Problem-Solving and Ideation** was conducted by **Mr. S. Janardhanam** and **Mr. Sivasankaran I**, aimed at equipping participants with structured approaches to identifying, analyzing, and solving complex challenges. The session was attended by students, faculty members, and professionals from various disciplines who actively engaged in discussions and hands-on activities.

### Workshop Objectives

- To introduce structured problem-solving techniques.
- To enhance participants' **critical thinking and analytical skills**.
- To explore various **ideation methodologies** for innovative solutions.
- To provide real-world case studies for practical application.

### Session Highlights

The workshop was divided into two key segments:

#### *1. Problem-Solving Techniques by Mr. S. Janardhanam*

Mr. Janardhanam introduced participants to **systematic problem-solving frameworks**, emphasizing the importance of defining problems clearly before seeking solutions. Key takeaways from his session included:

- **Root Cause Analysis (RCA)** – Identifying the underlying causes of issues.
- **Six Thinking Hats** – A decision-making framework to analyze problems from multiple perspectives.
- **PDCA Cycle (Plan-Do-Check-Act)** – A structured approach for continuous improvement.

His engaging style, supported by real-world examples from **entrepreneurship and skill development**, made the session highly interactive.

#### *2. Ideation Strategies by Mr. Sivasankaran I*

Mr. Sivasankaran I focused on **creativity and innovation in problem-solving**, particularly in the **manufacturing and industrial sectors**. His session covered:

- **Brainstorming Techniques** – Encouraging idea generation without limitations.
- **SCAMPER Method** – A structured approach for creative thinking (Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, Reverse).
- **Design Thinking Approach** – A user-centric method for innovation.



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Participants were engaged in **group activities**, working on **real-world challenges** and developing **innovative solutions** using the techniques learned.

### Key Outcomes

- Improved **problem-solving capabilities** and **decision-making skills**.
- Increased awareness of **strategic thinking and innovation**.
- Practical exposure to **industry-relevant methodologies**.
- Enhanced **collaborative thinking and teamwork** among participants.

### Conclusion

The workshop was a resounding success, providing valuable insights into structured problem-solving and ideation. The sessions led by **Mr. S. Janardhanam** and **Mr. Sivasankaran I** offered practical, hands-on learning experiences that participants found highly beneficial. The event highlighted the significance of **critical thinking, structured methodologies, and innovation** in tackling challenges across various domains.

The organizing team expresses gratitude to the esteemed speakers and looks forward to more such knowledge-sharing sessions in the future.



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**INSTITUTION'S  
INNOVATION  
COUNCIL**  
(Ministry of HRD Initiative)





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**LIST OF PARTICIPANTS  
FACULTY LIST**

S.No	Name	Designation
1	Mr. Vinod Kumar S	Assistant Professor
2	Dr.R.Mohan Das	Associate Professor
3	Dr.C.Ragupathi	Assistant Professor
4	Dr. L.PATTATHU RANI	Assistant Professor
5	Mrs. Seasapuram Dr. Sruthi	Assistant Professor
6	Mr. Ramanan	Assistant Professor
7	Dr. B JAGANATHAN	Assistant Professor
8	Dr. P. LOGANATHAN	Associate Professor
9	Dr. Kavitha Kumari.K. S	Assistant Professor
10	Mr. VIJAY J	Assistant Professor
11	Mr. A.Senthilkumar	Assistant Professor
12	Mr. Rattan Kumar V	Assistant Professor
13	Mr. RAJAT KUMAR DWIBEDI	Assistant Professor
14	Mr. Aravindan R	HOD
15	Mr. Henry Vino Vincent F	Lecturer
16	Ms. Vanitha R	Assistant Professor



17	Mrs. P.Poornima	Assistant Professor
18	Mr. K. Saravanan	Assistant Professor

**STUDENTS LIST (Internal and External)**

S.NO	STUDENTS NAME	YEAR
1	Ms. Vanitha R	PhD Student
2	Mrs. Rini Raj A	PhD Student
3	Mr. M.Hariharasudhan	UG Student
4	Mr. E.SIVABHARATHI	PG Student
5	Mr. N.shridhar	UG Student
6	Mr. P vijayabaskar	UG Student
7	Ms. MONISHA.J	UG Student
8	Mr. Dhananjay Dhritlahre	PG Student
9	Mr. SUJITH LAL S	PG Student
10	Mr. SHRUDHURAG KRISHNA	PG Student
11	Mr. HARISHRAGAVAN S	UG Student
12	Ms. V ARUL JOTHI	UG Student
13	Mr. Arockia Alex	PhD Student
14	Mr. M. Bharathiraja	PhD Student
15	Mr. STALIN VICTOR B	PhD Student
16	Mrs. Manimegalai .S	PhD Student
17	Mrs. ANTONI GRACY G	PhD Student
18	Mr. HARINARAYANAN J	PhD Student
19	Mr. Hariharan C	UG Student
20	Mr. Saai Sukruth	UG Student
21	Mr. Shri Prakash	UG Student
22	Mr. Rukkesh	UG Student
23	Mrs. P.Poornima	PhD Student



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24	Mr. K. Saravanan	PG Student
25	Mr. Nishanth	PG Student
26	Mr. Mithun Kumar	UG Student
27	Mr. Krishan kumar	UG Student
28	Mr. Sahil Kumar	UG Student
29	Mr. THIMMISETTI SURESH	UG Student
30	Mr. NN.Dinesh Reddy	UG Student
31	Mr. Joy Thomas T.V	UG Student
32	Ms. JYOTI	PhD Student