



K. K. Wagh Polytechnic, Nashik-3 Institution's Innovation Council



Date: 24/12/2025

Type of Activity - Calendar activity

Activity Name	Expert Session on Achieving Problem Solution-Fit
Type of activity	Calendar activity
Program Type	Expert Session- Offline
Program Theme	Innovation & Entrepreneurship
Duration of Activity (in hours)	6 Hours
Start Date	24/12/2025
End Date	24/12/2025
Number of student participants (min 40)	56
Number of faculty participants	Four
Sub Activity type	Others 1. Session on “A detailed interaction of process of start-up” 2. “Actual Field Visit”
Mode of Conduct	Offline Mode
Date and Time	24/12/2025, 09.30 am to 03.30 pm
Venue	Department of Electrical Engineering, K. K. Wagh Polytechnic, Nashik
Activity Coordinator	Mr. H. M. Kakad & Mr. N. S. Gorhe
Host Department	Electrical Engineering



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Activity Poster





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Key Output of Activity with KPIs	<p>Session: Achieving Problem–Solution Fit</p> <p>Step 1: Problem Identification</p> <ul style="list-style-type: none">• Key Output: Students clearly understand and define the given problem.• KPI: Percentage of students able to correctly frame the problem statement.



	<p>Step 2: Problem Analysis</p> <ul style="list-style-type: none">• Key Output: Logical and technical analysis of the problem.• KPI: Accuracy and completeness of problem analysis (rubric-based). <p>Step 3: Identification of Constraints</p> <ul style="list-style-type: none">• Key Output: Recognition of technical, economic, safety, and environmental constraints.• KPI: Number and relevance of constraints correctly identified. <p>Step 4: Generation of Solution Alternatives</p> <ul style="list-style-type: none">• Key Output: Multiple possible solutions proposed.• KPI: Number and feasibility of alternative solutions generated. <p>Step 5: Selection of Best-Fit Solution</p> <ul style="list-style-type: none">• Key Output: Appropriate solution selected with justification.• KPI: Quality of justification and decision-making score. <p>Step 6: Application of Engineering Tools and Standards</p> <ul style="list-style-type: none">• Key Output: Use of relevant tools, techniques, and standards.• KPI: Percentage of students effectively using tools/software/codes. <p>Step 7: Solution Validation</p> <ul style="list-style-type: none">• Key Output: Verification of solution through calculations, simulation, or testing.• KPI: Percentage of validated solutions. <p>Step 8: Documentation and Reporting</p> <ul style="list-style-type: none">• Key Output: Structured technical report prepared.• KPI: Report quality score (clarity, structure, completeness). <p>Step 9: Presentation and Communication</p> <ul style="list-style-type: none">• Key Output: Clear presentation of problem and solution.• KPI: Presentation performance score. <p>Step 10: Overall Session Effectiveness</p> <ul style="list-style-type: none">• Key Output: Improved problem-solving competence.• KPIs:<ul style="list-style-type: none">○ Student participation rate
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K. K. Wagh Polytechnic, Nashik-3

Institution's Innovation Council



	<ul style="list-style-type: none">○ Improvement in rubric scores○ Student feedback rating
Brief Agenda/Objective of activity	<p>Mr. Abhishek S. More, Design Engineer, Ifacec India Pvt. Ltd, Nashik successfully conducted session on Achieving Problem Solution-Fit on Date 24/12/2025 for the time duration 09.30 am to 03.30 pm.</p> <p>Following objectives are fulfilled by conducting the session on achieving problem solution-fit</p> <ul style="list-style-type: none">❖ To identify and clearly define real-world engineering problems with appropriate technical depth.❖ To analyze problems systematically using engineering principles, mathematics, and scientific knowledge.❖ To design effective, feasible, and sustainable solutions that meet specified requirements.❖ To apply appropriate tools, techniques, and modern engineering practices in solution development.❖ To evaluate multiple solution alternatives and select the most suitable one based on constraints.❖ To ensure compliance with relevant standards, safety norms, and regulatory requirements.❖ To validate proposed solutions through testing, simulation, or experimental verification.❖ To optimize solutions considering cost, efficiency, reliability, and environmental impact.❖ To enhance critical thinking, creativity, and decision-making skills in problem solving.❖ To develop proper documentation and communication of the problem analysis and solution.
Benefit in terms of learning / skill / knowledge obtained	<p>Learning Benefits</p> <ol style="list-style-type: none">1. Improved understanding of real-world engineering problems and their practical context.2. Enhanced ability to connect theoretical concepts with practical applications.3. Better comprehension of system behavior, constraints, and performance requirements. <p>Skill Development</p> <ol style="list-style-type: none">4. Development of analytical and critical thinking skills for effective problem solving.5. Improved design and decision-making skills through evaluation



	<p>of multiple solutions.</p> <ul style="list-style-type: none">6. Enhanced ability to use modern engineering tools, software, and instruments.7. Strengthened troubleshooting and diagnostic skills.8. Improved technical documentation and presentation skills. <p>Knowledge Enhancement</p> <ul style="list-style-type: none">9. Deeper knowledge of engineering standards, codes, and safety practices.10. Increased awareness of cost, energy efficiency, sustainability, and optimization concepts.11. Better understanding of interdisciplinary knowledge and real-life constraints. <p>Professional Competence</p> <ul style="list-style-type: none">12. Improved confidence in handling industry-oriented and practical engineering problems.13. Enhanced readiness for higher education, internships, and professional practice.
Social Media Links	Facebook - https://www.facebook.com/share/1PpbGmn7Af/ Twitter - https://x.com/i/status/2003456128391549112
Overall report of the activity	<p>Basics:</p> <p>As per IIC schedule, to encourage students and to create awareness among all students about achieving problem solution-fit in the field of entrepreneurship and innovation, Department of Electrical Engineering has arranged expert session named Achieving Problem Solution-Fit Conducted by Mr. Abhishek S. More, Design Engineer, Efacec India Pvt. Ltd, Nashik on date 24/12/2025 between schedule times 09.30 am to 03.30 pm.</p> <p>1. Introduction</p> <p>The activity on Achieving Problem-Solution Fit was conducted to enhance students' ability to identify real-world engineering problems and develop appropriate, feasible, and effective solutions. The activity aligns with the principles of Innovation and Entrepreneurship focuses on bridging the gap between theoretical knowledge and practical application.</p>



2. Objectives of the Activity

- To enable students to clearly identify and define engineering problems.
- To apply engineering knowledge and analytical skills to solve identified problems.
- To design and validate suitable solutions considering real-life constraints.
- To enhance problem-solving, decision-making, and technical documentation skills.

3. Description of the Activity

Students were assigned real-life or industry-oriented problems related to their course domain. They analyzed the problems, identified constraints, explored multiple solution alternatives, and selected the most appropriate solution. The activity involved literature review, calculations, simulations/experiments (where applicable), and preparation of a structured report.

4. Methodology Adopted

- Identification and definition of the problem statement
- Analysis of technical requirements and constraints
- Generation and comparison of alternative solutions
- Selection of the best-fit solution based on feasibility and effectiveness
- Validation of the solution through calculations, testing, or simulation
- Documentation and presentation of results

5. Outcomes of the Activity

- Students demonstrated improved understanding of real-world engineering problems.
- Effective application of theoretical concepts to practical situations was observed.
- Students successfully designed feasible and optimized solutions.
- Improved use of engineering tools, standards, and safety practices was achieved.

6. Benefits in Terms of Learning and Skills

- Enhanced analytical and critical thinking abilities
- Improved problem-solving and troubleshooting skills
- Better decision-making and solution evaluation capability
- Increased confidence in handling practical and industry-related



problems

- Improved technical writing and presentation skills

7. Overall Impact

The activity significantly contributed to the development of students' technical competence and professional readiness. It promoted active learning, independent thinking, and practical exposure, thereby strengthening students' preparedness for higher education and industry requirements.

8. Conclusion

The **Achieving Problem–Solution Fit** activity successfully met its intended objectives. It proved to be an effective learning tool for developing practical problem-solving abilities, enhancing technical knowledge, and supporting the overall attainment of course and program outcomes.

Mr. H. M. Kakad
Activity Coordinator

Mrs. M. P. Nawarkar
Coordinator
IIC

Dr. P. S. Bhandari
Convener
IIC

Prof. P. T. Kadave
President
IIC



Activity Summary Report

Title of Activity: Diploma to Dream Career.

Date of Activity: 06/01/2026

Activity for Class: TYEE-Tesla,Ohm

Type of Activity: Expert Lecture

Total Students Attended: 81

Recourse Person(s) Name and Designation: Dr.Pratibha Chandak,Counsellor.	Organization: K.K. Wagh Polytechnic,Nashik
This Session have covered the following topics : <ol style="list-style-type: none">1. The session focused on self-analysis as the first step toward career success. Seven important self-related terms were discussed in detail to help students identify their career direction.2. Building Self-Esteem and Confidence Identifying negative self-talk Ways to boost self-confidence and positive thinking3. Dealing with Peer Pressure and Social Challenges Navigating relationships and friendships Handling bullying or social exclusion.4. Emphasis was given on skill development, certifications, internships, and industry exposure.5. Students actively participated in the counselling session. They shared their thoughts and clarified doubts related to career and personal growth.	Photos of Session:   
Outcomes/Conclusion: The counselling session on “Diploma to Dream Career” was highly effective and meaningful. It helped students connect self-understanding with career planning. The session encouraged students to take responsibility for their personal and professional growth.	

Photos of Session:



Prof. S.B.Pawar
HOD- EE Dept.