



GEETHANJALI COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE and Permanently Affiliated to JNTUH)

Accredited by NBA and by NAAC with 'A+' Grade)

(Cheeryal (V), Keesara (M), Medchal. Dist. 501 301)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Note Submitted to Principal:

Date: 15-01-2025

Sub: - Action Taken on the observations made during the External Academic Audit of AY 2023-24 - Reg.

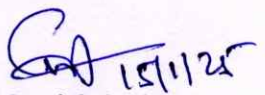
The External Academic Audit for the year 2023-24 was carried out on 14th December, 2024 by members of the committee. Dr. B. Sarala, Professor in ECE, M.V.S.R. Engineering College, Hyderabad carried out the audit in the Department of ECE. A few suggestions have been made in the report based on the observations made during the audit. The corrective actions have been initiated in the department as per the suggestions made by the committee, the details of which are provided below:

The Action Taken Report (ATR) is presented in the following table:

Column-1	Column-2	Column-3
Criterion/ Item	Remarks/Comments made by the committee members	Action Taken on the Remarks/Comments made in Column-2
Strengths	<ol style="list-style-type: none">1. Well-maintained website with updated information2. Placement is Good3. Well maintained files4. Industry initiated laboratories is Excellent5. Starting and Ending Ranks improved compared to last year6. Group head concept is good according to specialization7. Student inter-institute participation is Good8. SFR well maintained	

Weakness	<ol style="list-style-type: none"> 1. Impact analysis of Industry- institution interaction to be strengthened 2. No impact analysis report for Internships. 3. COs for Basic Engineering Mathematics to be rewritten using BTLs 	<ol style="list-style-type: none"> 1. Impact analysis of Industry- institution interaction has been reviewed and revised as per the suggestion given, consolidating various activities carried out with the support of industries and/ or personnel from industries as detailed in Annexure - 1 2. Prior to AR18 Regulations when internship was not mandatory, a few students used to carry out the internship at various industries during summer vacation. For those batches of students, the impact of internship was done linking it to their placements. However subsequently internship was made mandatory under AR18, AR20 and AR22 Regulations. Since then the impact of internship is analyzed through feedback taken from the students on TEN (10) aspects, after successful completion of their internship. This impact analysis is provided in Annexure – 2 3. Course outcomes (COs) for Basic Engineering Mathematics along with other courses of the curriculum under AR22 Regulations are revised. For better comprehension of COs against the content of the course, a table has been incorporated for each course in the Syllabus. The table explicitly indicates the Blooms Taxonomy Level of the CO, mapping of each CO with POs and PSOs along with the Related Units. Format of this Table is provided in Annexure – 3
Concerns	<ol style="list-style-type: none"> 1. Student entrepreneurs – Nil 2. Student publications need to be improved 3. No funded projects for current academic year 	<ol style="list-style-type: none"> 1. The institution has a separate Entrepreneur Development Cell which conducts activities on a regular basis. The number of activities conducted during AY 2023-24

		<p>is 29. The entrepreneurship ecosystem of the institution motivated Mr. Manish Juluri and Mr. SujitRayaprolu, students of ECE to establish a startup company “Samyagdrushti Surveillance Pvt. Ltd” on 1st April 2022 through the incubation center - Geenovate Foundation. Institution signed an MoU with T-Hub Foundation on 19th July, 2023 to be part of Kickstart Program for promoting Innovation, Startup & Entrepreneurship development.</p> <p>2. The institution has come out with a policy of supporting the student publications financially by bearing the publication cost as a part of improving the student publications. Towards this, the department has decided to further improve the quality of the projects carried out by the students and converting them into research publications in reputed journals.</p> <p>3. Though there are no funded projects sanctioned for the academic year 2023-24, TWO(2) Faculty members have applied for Funding Research Projects, the details of which are provided in Annexure – 4.</p>
Deficiencies		


 Dr. G. Sreelakshmi
 HoD, ECE.

Copy to:

1. Overall IQAC- Coordinator, GCET
2. Dean (Academics)
3. Dean (Administration)



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Department of ECE

Annexure – 1: Industry Institute Interaction and its Impact for AY 2024-25

1. Summary of Industrial Visits of Students/ Faculty

S.No.	Year/ Sem	Date of visit	Name of place and Industry visited	No. of Students	Faculty members accompanied
1		23-Oct-2024	Convergence of Academia & Industry MarconiTech And Siemens	-	2
2	-	23-Sep-2024	TechFluent Solutions, Hyderabad	-	3
3	-	3-Aug-2024	Sumedha IT Solutions, Hyderabad	-	2
4	III-I	28 Aug 2024	IRISET, Tarnaka, Hyderabad	51	2
5	II-I	30-Aug-2024	Datalog Controls & Solutions Pvt.Ltd., Cherlapalli, Hyderabad	50	2

Impact of the above visits is as follows:

The students enthusiastically participated in the industrial visits and are motivated to understand the best practices followed in the industrial environment.

2. Guest lecture by experts from industry

Date	Title of the Guest Lecture	Name of the resource person	Organisation and Designation	Professional Body	Target Audience
3-Jul-2024	AI enabled embedded Systems Development for Vision and Speech Processing use Cases	Mr. B. Chaitanya and Mr. Ch. Phani	Principal software Engineer and Senior software Engineer Brain chip Inc., Hyderabad.	IEEE CAS SBC	44 students attended

Impact of guest lectures:

The experts from industry highlighted various applications of state-of-art technologies in the real world. The students found the sessions very interesting and are motivated to delve deeper to enhance their knowledge and execute mini / major projects.

3. Memorandum of Understanding (MoU) for Collaboration with Industry and Impact of Interaction

S.N.	Name of Industry	Impact of Interaction
1.	Datalog Controls and Solutions Private Limited, Hyderabad	<ul style="list-style-type: none"> ➤ Industrial visit by faculty and students ➤ The CEO of this industry was invited as Judge for final year Project Exhibition. ➤ Opportunity to students for Internship and execution of Mini/Major Projects
2	LED Chip Indus Private Limited, Hyderabad	<ul style="list-style-type: none"> ➤ Industrial visit by faculty and students ➤ Guest lectures were given by industry experts to students ➤ Opportunity to students for Internship and execution of Mini/Major Projects
3	Indian Railways Institute of Signal Engineering and Telecommunications (IRISET)	<ul style="list-style-type: none"> ➤ Opportunity for faculty to get trained by IRISET in Railway Signal Engineering and in indigenous Automatic Train Protection (iATP)-Kavach, and subsequently offer short duration certificate courses to students. ➤ Opportunity for Industrial visit to students and faculty / Guest lectures by industry experts ➤ Opportunity for students to do Internship in the industry
4	Physitech Electronics Ltd., Hyderabad	<ul style="list-style-type: none"> ➤ Established industry supported laboratory on IoT Learning and Testing. ➤ Conducted FDPs on Raspberry-Pi, NodeMCU and IoT applications.
5	Chandhar Research Labs Pvt. Ltd	<ul style="list-style-type: none"> ➤ Established wireless communication laboratory related 4G/5G communication ➤ Conducted 5G Communication and implementation using hands on session
6	VLSI Design Lab using Cadence Software.	<ul style="list-style-type: none"> ➤ Establishment of Industry supported laboratory with Entuple Technologies Pvt. Ltd., Bangalore
7	C-DAC, Trivandrum	<ul style="list-style-type: none"> ➤ Establishment of Industry supported laboratory VEGA Processor Lab ➤ Conducted FDPs and SDPs
8	C-DAC Bangalore	<ul style="list-style-type: none"> ➤ Establishment of Industry supported laboratory ChipIN Centre (EDA Tools Accesses), an initiative by MeitY Govt. of India

4. FDPs / SDPs conducted with Industry Experts as Resource Persons:

S.N.	Name of the FDP / SDP	Date(s)	Resource Person(s)	No. of Faculty Attended
1	Mastering MS Excel	5-Aug-2024 to 10-Aug-2024	Mr.Ilesh, Asso.Director, National Academy	15
2	VEGA Processors and their Applications	2-Sep-2024 to 6-Sep-2024	Mr.LIBIN.T.T,SCIENTIST, C-DAC TRIVANDRUM	10

Impact of the above FDPs / SDP is as follows:

The faculty had gained knowledge on how machine learning impacts various fields namely signal processing, communication and control systems.

5. Partial Course Delivery by industry person

Ms. M. Sowmya, Design Engineer-II, Microchip Technologies Private Limited, Hyderabad has made partial delivery of the course “Digital Design through Verilog HDL” for III Year students on Saturdays from 21.09.2024 to 9.11.2024 for a total duration of 30 hours.



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Annexure – 2: Feedback on Internship and its Analysis

Feedback Questionnaire on Internship – AY 2023-24

1. Does internship facilitate acquisition of extra academic skills for you?
2. Does internship facilitate understanding of the industry culture?
3. Does internship facilitate usage of modern tools?
4. Does internship facilitate understanding the importance of working as an individual and as a team member?
5. Does internship facilitate improvement of your oral and written communication skills?
6. Does internship facilitate preparation of technical report in an organized manner?
7. Does internship facilitate improvement of your presentation skills?
8. Does internship promote the importance of regularity and completion of tasks within a given time frame?
9. Do you believe that doing internship will enhance your chances of getting employment?
10. Does internship promote your critical thinking and analytical thinking?
11. Any other feedback or suggestions from your end?

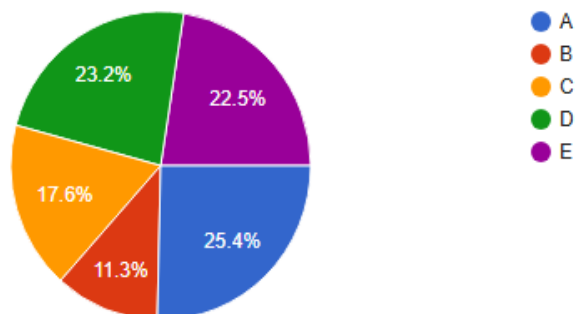
5: Fully agree; 4: Agree to a large extent; 3: Agree partially; 2: Not agree; 1: Completely disagree

Total responses received: 142 Section-wise response is indicated below:

Your Section

142 responses

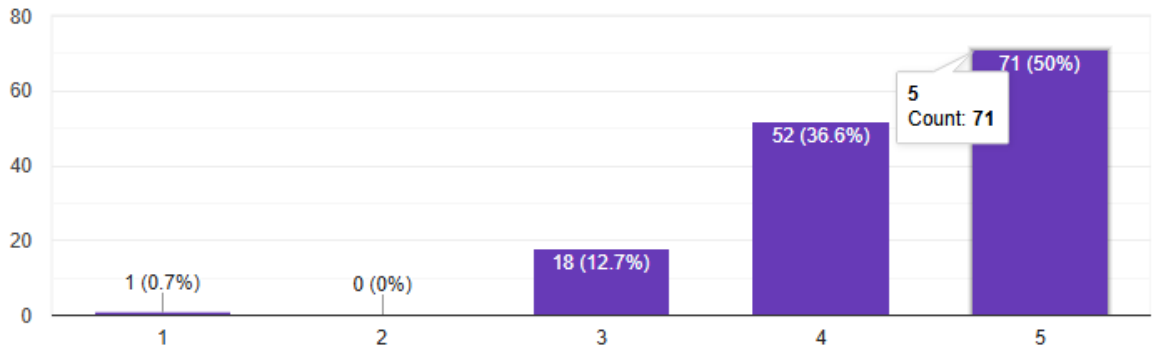
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1. Does internship facilitate acquisition of extra academic skills for you?

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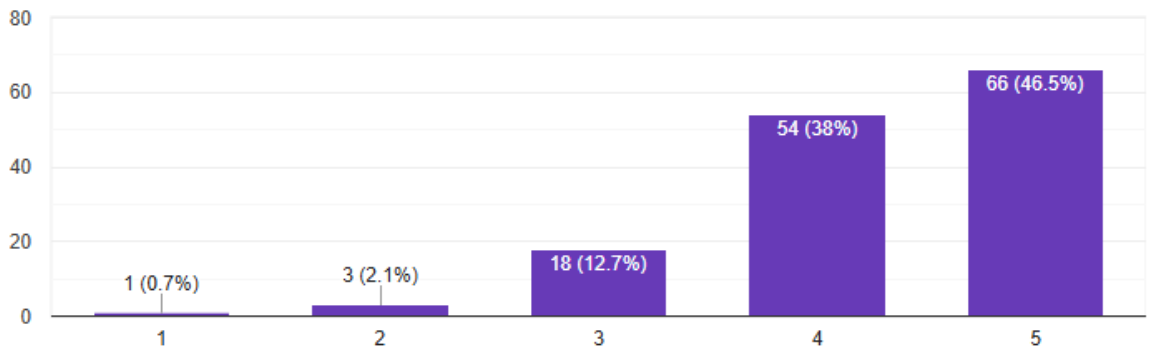
142 responses



2. Does internship facilitate understanding of the industry culture?

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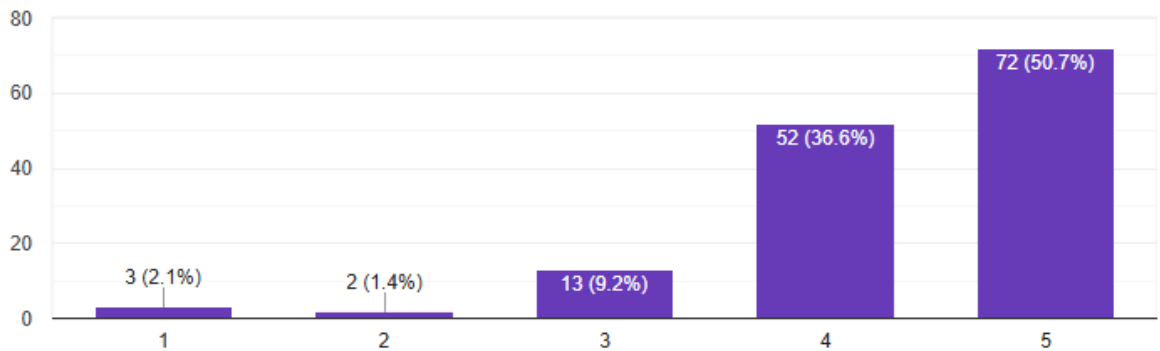
142 responses



3. Does internship facilitate usage of modern tools?

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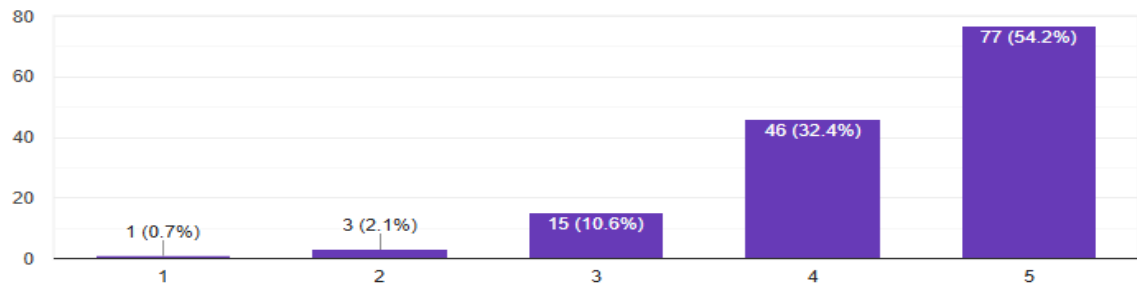
142 responses



4. Does internship facilitate understanding the importance of working as an individual and as a team member?

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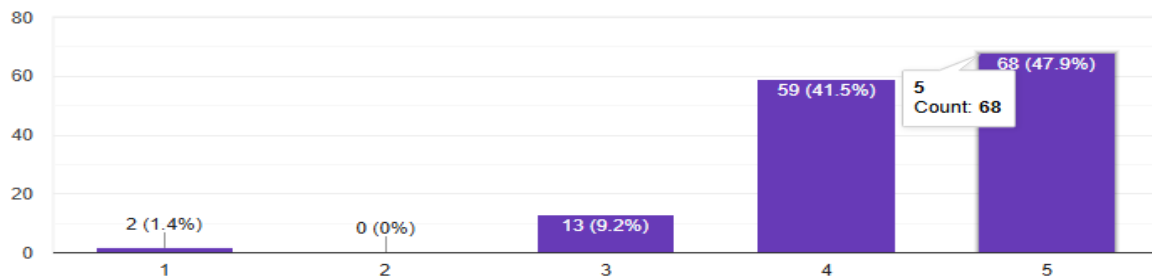
142 responses



5. Does internship facilitate improvement of your oral and written communication skills?

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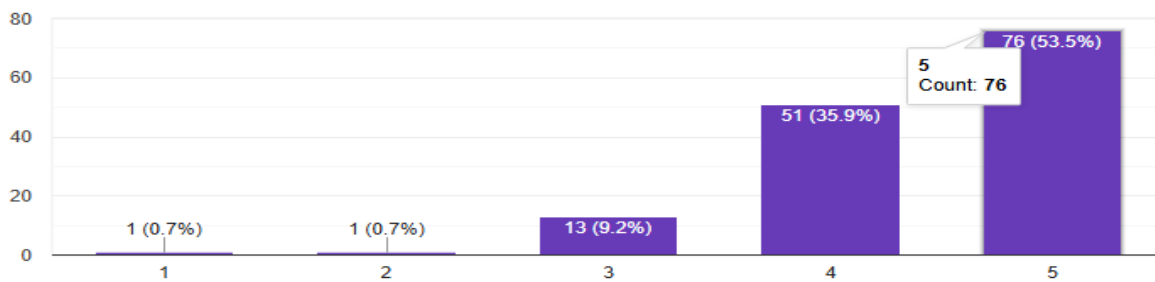
142 responses



6. Does internship facilitate preparation of technical report in an organized manner?

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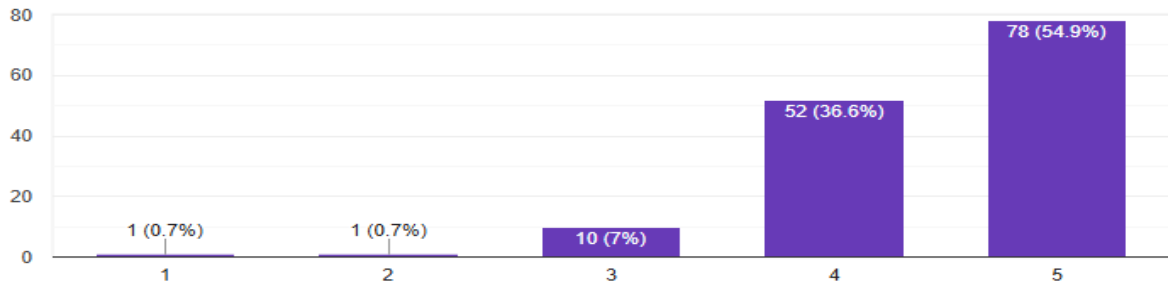
142 responses



7. Does internship facilitate improvement of your presentation skills?

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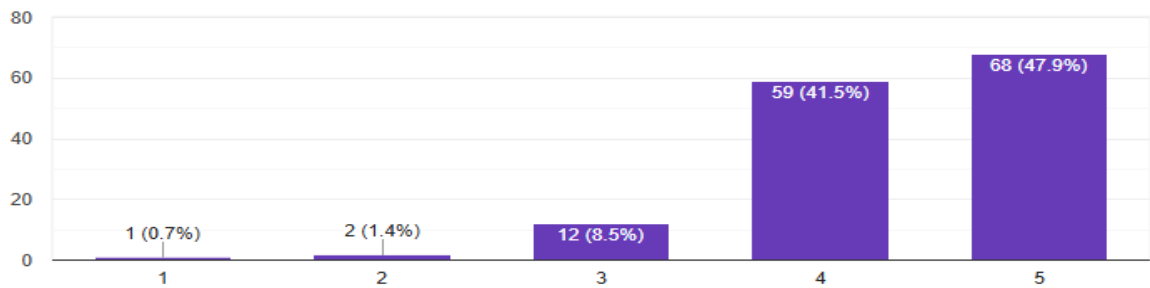
142 responses



8. Does internship promote the importance of regularity and completion of tasks within a given time frame?

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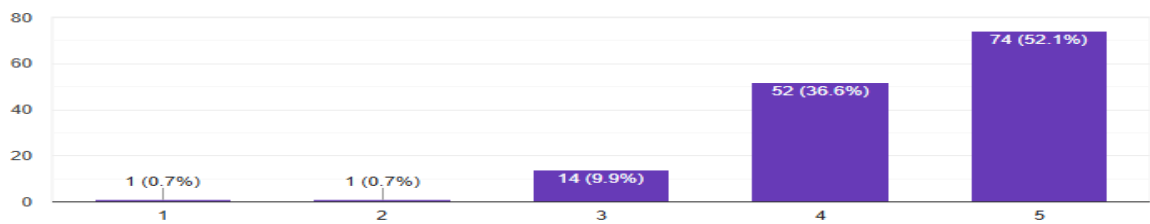
142 responses



9. Do you believe that doing internship will enhance your chances of getting employment?

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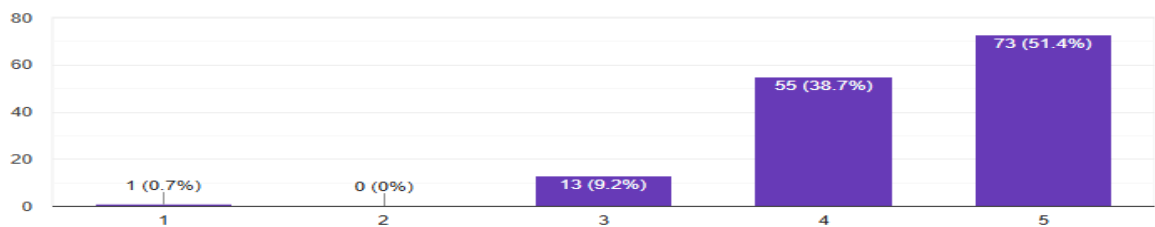
142 responses



10. Does internship promote your critical thinking and analytical thinking?

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142 responses





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Department of ECE

Annexure – 3: Representation of COs with BTLs

At the end of the course students should be able to

CO	Course Outcomes	BTL	Related POs and PSOs	Related Units
CO1	Apply basic laws of electric and magnetic fields to solve problems related to different charge and current distributions.	3	PO1, PO2 PSO1	I and II
CO2	Analyze the applications of Maxwell's equations to time-harmonic fields, boundary conditions, and Poynting's theorem.	4	PO1, PO2 PSO1	III
CO3	Analyze the propagation characteristics of uniform plane waves in conducting and dielectric mediums.	4	PO1, PO2 PSO1	IV
CO4	Analyze the characteristics of lossy and lossless transmission lines.	4	PO1, PO2 PSO1	IV
CO5	Illustrate the applications of lossless transmission lines at RF and UHF frequencies	3	PO1, PO2 PSO1	V



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Department of ECE

Annexure – 4: Research Funding Projects Applied during 2023-24

S.No.	Name of the PI and Co-PI(s)	Title of Proposed Project	Date of the submission	Project Cost (Rs)	Funding Organization
1	Dr. P. Sudhakar Dr. M.Satyanarayana	Lidar for Air pollution Monitoring	Dec-2023	Rs 30.00 Lakh	SERB
2	Dr.M.Jagan Mohana Rao	Novel Control for Hybrid Integration of PV, Wind, Battery, Electrolyzer and Fuel Cell based Microgrid By Smith Predictor	Dec-2023	Rs 7.45 Lakh	SERB