



# Indra Ganesan

## COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai  
Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

## NAAC APPEAL DOCUMENTS

### QUALITY INDICATOR FRAME WORK

#### CRITERION – 3

### RESEARCH, INNOVATIONS AND EXTENSION

SUBMITTED BY

**IQAC**

INTERNAL QUALITY ASSURANCE CELL

**INDRA GANESAN COLLEGE OF ENGINEERING**





<b>Criterion 3</b>	<b>Research, Innovations and Extension</b>	<b>110</b>
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### Key Indicator - 3.2 Innovation Ecosystem

**3.2.1. Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge.**

#### **B) RESEARCH ACTIVITIES:**

- Events like FDP, Seminars are conducted for faculty members to gain knowledge on journal publications.
- **80 Research methodology programmes** were conducted for the benefit of the students.
- To inculcate research activities **13 research based proposals were applied** through Research Development and Discussion Board (RDDDB) and **received 5 grants worth of Rs. 23.24 Lakhs.**
- These details were presented by the Principal during HoI presentation and verified by the respected peer team members.



**List of grants received through RDDB Cell of IGCE**

S.No	Principal Investigator	Co Investigator	Department	Designation	Scheme Applied	Title of the Proposal	Budget Amount	Status
1	Dr. M.Anusuya	Dr. S.Bharathiraja	Physics	Professor	Gender Equality	National Commission for Women New Delhi / One Day Legal Awareness Programme	Rs. 90,000/-	Completed on 2020
2	Dr. M.Anusuya	Dr. G.Balakrishnan	Physics	Professor	FDP	AICTE, New Delhi / Short Term Training Programme for Teachers, Online 3 Weeks FDP	Rs.2,99,333/-	Completed on 2020
3	Dr. M.Anusuya	Dr. M. Bhuvaneshwari	Physics	Professor	Popularization of Science	TNSCST, Chennai / One day National Seminar on Recent Trends in Nano Material Science	Rs.15,000/-	Completed on 2021
4	Dr. M.Anusuya	Prof. T. Sugashini	Physics	Professor	FDP	Anna University, CFD, Chennai / One Week online Faculty Development programme (PH8151)	Rs.30,000/-	Completed on 2021
5	Dr. M.Anusuya	Prof. Ramya	Physics	Professor	MODROBS	Nanomaterials & Thin Film Research	Rs.18,90,190	Completed on 2024

**List of proposals applied through RDDB Cell of IGCE**

S.No	Principal Investigator	Co Investigator	Department	Designation	Scheme Applied	Title of the Proposal	Budget amount	Status
1	Dr. M.Anusuya	Dr.P.Lalitha	Physics	Professor	SERB-POWER GRANT	Investigating the effects of ion Beam Irradiation on Amino Acid Single Crystals for Nonlinear optical Applications	Rs.25,50,000/-	Submitted on 09 <sup>th</sup> Feb 2024
2	Dr.M.Santhi	Dr.M.Bhaneshvari	ENGG.	Professor		Pregnancy Monitoring Using SOS Device	Rs.5,01,500/-	Submitted on 15 <sup>th</sup> Feb 2024





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3	Dr. M.Anusya	Dr.S. Vijayalaxmi	Physics	Professor	Recovery and Recycling of End of Life Solar PV Panels	"Green Energy , Green Waste Efficient Recycling of Solar PV Panels "	Rs.2,54,20,500/-	Submitted on 30 <sup>th</sup> June 2024
4	Dr.M.Anusuya	Dr.S. Vijayalaxmi	Physics	Professor	Nano Mission	"Development of Advanced Nanomaterials for Efficient Solar Energy harvesting"	Rs.2,32,93,500/-	Submitted on 17 <sup>th</sup> September 2024
5	Dr. M.Anusuya	Dr.P.Lalitha	Physics	Professor	Cognitive Science Research Initiative	"AI- Assisted nanomaterial Development for Biomedical Imaging and Diagnostics"	Rs.3,55,84,010/-	Submitted on 30th may 2024
6	Dr. N Nirmala Devi	Dr. R Kalaiarasi	S&H	Professor		Effectiveness of Learner Centre Techniques on Achievement of Pedagogy of Computer Science Part I subject in First Year B.Ed. Students	Rs.15,00,000/-	Submitted on 29th May 2024
7	Dr.R Selvaganapathy	Dr. Rajendaran	S&H	Professor	Cognitive Science Research Initiative	Analysis of Academic Self image and Academic Performance among Higher Secondary School Students	Rs.29,62,000/-	Submitted on 31st May 2024
8	Dr. R Kalaiarasi	Dr. N Nirmala Devi	S&H	Professor		Effectiveness of using an interactive smart board in Teaching English of Engineering Students	Rs.7,00,000/-	Submitted on 29th May 2024



S.No	Year	Name of the workshop/ seminar/ conference	Number of Participants	Date From – To	Link to the Activity report on the website
<b>ACADEMIC YEAR 2022-2023</b>					
1	2022-2023	Research Techniques in Intelligent Automation in Civil Engineering	24	22.08.2022	<a href="#">View</a>
2	2022-2023	Research Ideas in Making Use Of Bamboo in Construction	24	17.02.2023	<a href="#">View</a>
3	2022-2023	Design issue In Search engine Optimization	100	11.08.22	<a href="#">View</a>
4	2022-2023	Trial and Error method for Optimal Function Using Machine Learning	100	01.03.2023	<a href="#">View</a>
5	2022-2023	Research Area in The Field Of Communication Engineering	46	29.09.2022-30.09.2022	<a href="#">View</a>
6	2022-2023	Application Of cross Tabulation and Chi-square Testing in Hypothesis	50	10.03.2023	<a href="#">View</a>
7	2022-2023	Students Development on Publication Ethics	34	07.02.2023	<a href="#">View</a>
8	2022-2023	Statistical method for Research	34	28.10.2022 to 29.10.2022	<a href="#">View</a>
9	2022-2023	Integration of Research and Innovation in Academic Institutions	34	22.09.2022 to 23.09.2022	<a href="#">View</a>
10	2022-2023	Resarch Publications and Project	39	19.09.2022-20.09.2022	<a href="#">View</a>



11	2022-2023	Publication Strategy	32	07.03.2023	<a href="#">View</a>
12	2022-2023	Cross cutting issues in scalable visual analysis in Interactive systems	49	11.10.2022	<a href="#">View</a>
13	2022-2023	Interactive Systems for scalable visual analysis	49	24.04.2023	<a href="#">View</a>
14	2022-2023	Emerging Trends on AI enabled data analysis for business Decision making	42	11.11.2022	<a href="#">View</a>
15	2022-2023	A Comparative study on Banking and Non banking	23	23.03.2023 -24.03.2023	<a href="#">View</a>
16	2022-2023	Risk Managment in Entrepreneursip	280	11.10.22 - 12.10.22	<a href="#">View</a>
17	2022-2023	Leadership and Team Management	141	17.02.2023	<a href="#">View</a>
<b>ACADEMIC YEAR 2021-2022</b>					
18	2021-2022	Engineering of Water Management In a Changing Climate	13	06.09.2021	<a href="#">View</a>
19	2021-2022	Recent Use of Nano Metal Oxides in The Waste Water Treatments Of Soaps and Detergents	13	28.03.2022	<a href="#">View</a>
20	2021-2022	Research Technologies in Decisions Based Data Processing in Human	96	23.09.21	<a href="#">View</a>
21	2021-2022	Collaborative Filtering in System Design	96	18.03.22	<a href="#">View</a>



22	2021-2022	Art of Drafting A Research Paper	52	27.08.2021-28.08.2021	<a href="#">View</a>
23	2021-2022	Ethical Issue Related To Publishing Plagiarism	52	25.03.2022	<a href="#">View</a>
24	2021-2022	Students Development on Research Methodology	39	07.05.2022	<a href="#">View</a>
25	2021-2022	Need for R&D @ Engineering Colleges	39	17.11.2021 to 18.11.2021	<a href="#">View</a>
26	2021-2022	Scope of Internet Of Things(IOT) in The Mechanical World	43	01.09.2021-02.09.2021	<a href="#">View</a>
27	2021-2022	Funded Project Methodology	36	07.03.2022	<a href="#">View</a>
28	2021-2022	Cross Cutting Technologies In Enhancing Of Chatbots	58	01.10.2021	<a href="#">View</a>
29	2021-2022	Application of Googling 3-D space	63	30.03.2022-31.03.22	<a href="#">View</a>
30	2021-2022	Cripple of Crypto currency	26	10.12.2021	<a href="#">View</a>
31	2021-2022	Data basis and Research Metrics	60	05.05.2022 - 06.05.2022	<a href="#">View</a>
32	2021-2022	Lean Startup Principles	200	5.10.2021-06.10.2021	<a href="#">View</a>
33	2021-2022	Social Entrepreneurship	141	09.02.2022	<a href="#">View</a>



**ACADEMIC YEAR 2020-2021**

34	2020-2021	Recent Engineering Structures in Modern India	23	27.10.2020	<a href="#">View</a>
35	2020-2021	Experiment of Bridge Design for a Changing Environment	25	01.03.2021	<a href="#">View</a>
36	2020-2021	Research Scenario In Tourism Using Natural Language Processing	82	10.08.2020	<a href="#">View</a>
37	2020-2021	Edge Computing in Smart Applications	82	23.03.2021	<a href="#">View</a>
38	2020-2021	Different Types Of Research Design	53	10.08.2020-11.08.2020	<a href="#">View</a>
39	2020-2021	Data Analysis With Regression	53	26.03.2021	<a href="#">View</a>
40	2020-2021	Guidelines for doing Research	46	23.04.2021	<a href="#">View</a>
41	2020-2021	Research Grands from funding Agencies	44	08.04.2021	<a href="#">View</a>
42	2020-2021	Research in Vibration Acoustics and Fluid Structure	37	04.03.2021	<a href="#">View</a>
43	2020-2021	Combustion Energy System	70	23.10.2020-24.10.2020	<a href="#">View</a>
44	2020-2021	“Research on Web-based health monitoring and textual mining	68	07.10.2020	<a href="#">View</a>





45	2020-2021	Application of AI in robot manipulation for deep visual models	49	19.03.2021-20.03.21	<a href="#">View</a>
46	2020-2021	Data analysis using SPSS	28	17.12.2020 - 18.12.2020	<a href="#">View</a>
47	2020-2021	Research Methods in Finance	26	24.05.2021	<a href="#">View</a>
48	2020-2021	Internship Program With Startups	227	14.10.2020-15.10.2020	<a href="#">View</a>
49	2020-2021	Entrepreneurism Journalism	196	10.02.2021	<a href="#">View</a>
<b>ACADEMIC YEAR 2019-2020</b>					
50	2019-2020	Advanced Intelligent Public Transportation and Smart Cities	42	25.10.2019	<a href="#">View</a>
51	2019-2020	Research in New Materials For Usage in Civil Engineering	42	24.02.2020	<a href="#">View</a>
52	2019-2020	Cross Cutting in Themes in Research Design For Technology	98	27.09.2019	<a href="#">View</a>
53	2019-2020	Application of Big data Analytics In HealthCare	98	28.04.2020	<a href="#">View</a>
54	2019-2020	Concept Of Qualitative and Quantitative Research	72	30.08.2019-31.08.2019	<a href="#">View</a>
55	2019-2020	Cutting Edge Technologies in Measurement	72	31.01.2020	<a href="#">View</a>



56	2019-2020	Research Methodology tools and Technologies	48	10.01.2020	<a href="#">View</a>
57	2019-2020	Nano Materials and Structure	44	19.02.2020	<a href="#">View</a>
58	2019-2020	Cracks in Wind Bearings	43	15.10.2019-16.10.2019	<a href="#">View</a>
59	2019-2020	Reasoning Era in Data pipeline	55	24.09.2019	<a href="#">View</a>
60	2019-2020	Applications of Graphical User interface in debugging	62	20.03.2020-21.03.2020	<a href="#">View</a>
61	2019-2020	Analysis of gender inequity in the workplace	42	17.10.2019	<a href="#">View</a>
62	2019-2020	Technological innovations and their role in management practices	28	05.02.2020 - 06.02.2020	<a href="#">View</a>
63	2019-2020	Pitching and Presentation Skilla	165	16.10.2019 to 17.10.2019	<a href="#">View</a>
64	2019-2020	Artificial Intelligence for startups	170	14.02.2020	<a href="#">View</a>
<b>ACADEMIC YEAR 2018-2019</b>					
65	2018-2019	Research Methodology in Natural Disaster Resistant Infrastructure	68	29.10.2018	<a href="#">View</a>
66	2018-2019	Recent Trends in Sustainable Metropolitan Development Management and Planning	68	28.02.2019	<a href="#">View</a>



67	2018-2019	Application of AI in Representation of Quantitative information	115	28.09.2018	<a href="#">View</a>
68	2018-2019	Recent Trends in Digital Technology For Active Learning Process	115	24.04.2019	<a href="#">View</a>
69	2018-2019	Quality of Good Hypothesis	97	04.08.2018-05.08.2018	<a href="#">View</a>
70	2018-2019	Application of Sampling Concept in Research Field	97	20.03.2019	<a href="#">View</a>
71	2018-2019	Qualitative Research Methodology	47	13.2.2019	<a href="#">View</a>
72	2018-2019	Writing Quality Research Paper and Publishing	47	20.07.2018 to 21.07.2018	<a href="#">View</a>
73	2018-2019	Various Solar Still Design	149	20.03.2019-21.03.2019	<a href="#">View</a>
74	2018-2019	Energy Conservation on Boiler	145	10.10.2018	<a href="#">View</a>
75	2018-2019	Application of Database Queries in Automated Reasoning	80	27.09.2018	<a href="#">View</a>
76	2018-2019	Research on AI and Deep Learning are changing the healthcare Industry	62	18.03.2019-19.03.2019	<a href="#">View</a>
77	2018-2019	Analysing digitalization of Global Business environment	61	05.09.2018	<a href="#">View</a>
78	2018-2019	Methodologies to manage conflicts in a team	42	21.02.2019	<a href="#">View</a>



79	2018-2019	Buisness Model Canvas: A Tool for Entrepreneursip	205	4.10.2018-05.10.2018	<a href="#">View</a>
80	2018-2019	Design Thinking for innovation	150	13.02.2019	<a href="#">View</a>