

Udumalai Road, Pollachi, Coimbatore District 642003

An Autonomous Institution Since 2011 (A DIVISION OF NIA EDUCATIONAL INSTITUTIONS)









1<sup>st</sup>June 2017 to 31<sup>st</sup> December 2022

## 1<sup>st</sup> Research Incentive **Awardees & Achievements**

Office of Dean - Research & Innovation





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#### Vision

> To become a globally recognized hub of pioneering research and innovation, driving transformative advancements in engineering and technology for the betterment of society.

#### Mission

- Foster research excellence and innovation, by identifying potential IPR, offering financial support for filing, facilitating revenue sharing from consultancy collaborations, and rewarding faculty through fair incentives.
- > Strengthen research interest groups, empower the student research council, and publish the R&I newsletter to promote and celebrate achievements in the domain of research and innovation.
- Disseminate knowledge through the publication of research, knowledgesharing sessions, seminars, faculty development programs, workshops, inter and intra-college technical symposiums, conferences, and open-house exhibitions.
- ➤ Offer state-of-the-art research facilities and resources to facilitate interdisciplinary research projects, secure research funding, conduct research with industry partners, and carry out PhD works.
- Review Ph.D. scholars' progress, department R&I activities, ongoing externally funded projects, in-house R&D projects, and institute innovation council.



#### Initiatives taken by Office of Dean Research & Innovation

- 1. Facilitating the hosting of International Conferences
- 2. Conduction of Open House Exhibition
- 3. Identifying potential IPR and providing financial support for filing
- 4. Facilitating Revenue Sharing of Consultancy
- 5. Managing the activities of the Institution's Innovation Council(IIC)
- 6. Convening meetings, Controlling and Monitoring NIRF data analysis
- 7. Periodic review of Ph.D. Scholar Progress
- 8. Periodic review of Department R&I activities
- 9. Periodic review of Ongoing External Funded Projects
- 10. Periodic review of Ongoing In-house R&D Projects
- 11. Periodic review of Ongoing Consultancy Works
- 12. Ph.D. Guide Identification and Allocation

## Initiatives taken by Office of Dean Research & Innovation (Continued.,)

- 13. Periodic Circulation of Calls for Proposals
- 14. Identifying and Sanctioning In-house R&D Projects for Faculty members
- 15. Identifying and Sanctioning In-house R&D Projects for Students
- 16. Formation of Research Interest Group
- 17. Formulation of Student Research Council
- 18. Publication of the R&I Newsletter
- 19. Incentive distribution to faculty for Research Contribution
- 20. Conducting Knowledge Sharing Sessions & Organizing Research Seminars
- 21. Facilitating faculty for attending Faculty Development Programs and workshops
- 22. Facilitating faculty for attending Online Certification Courses
- 23. Purchasing R&I Tools for checking Plagiarism and Grammar
- 24. Facilitating Students' participation in Seminars and Workshops
- 25. Facilitating Subscriptions for Printed and E-Journal

#### Introduction of the Chief Guest



Dr.C.Umarani
Director,
Centre For Research,
Anna University,
Chennai - 600 025, Tamil Nadu.

Educational Qualification:

Post Doctorate Fellowship from University of Canterbury, New Zealand. Ph.D (Civil Engineering) from CIT, Coimbatore.

Professional Experience:

She has 33 years of teaching experience (19 years at IRTT, Erode and 14 years at CEG, AU).

Research Publications:

She has published over 50 papers in International journals and 12 papers in national journals, reviewed three books, written one book.

Research Guidance:

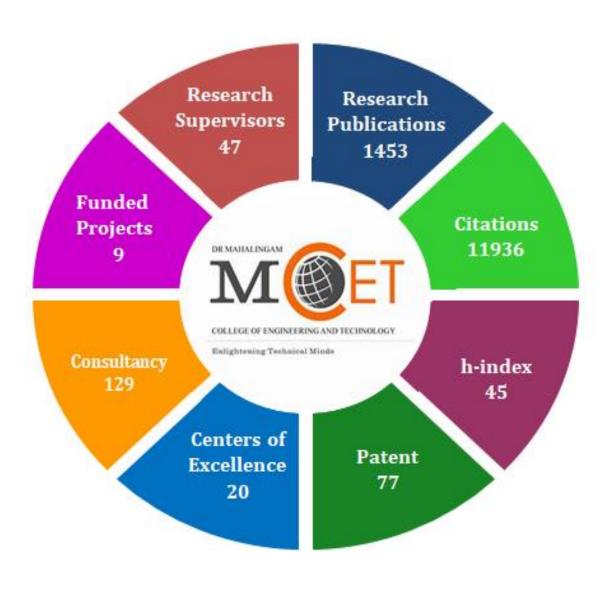
She has guided 12 Ph.D. scholars (10 as Supervisor, 2 as Joint Supervisor), 4 M.S. (By Research) Scholars, and currently guiding 5 Ph.D. scholars.

#### **Significant Achievements**

- She was one of the six candidates selected for international research in Earthquake Engineering under NPEEE scheme by MHRD.
- She was awarded Research Project by DST under Young Women Scientist Scheme.
- As a researcher, she has established R&D collaborations with University of Canterbury, New Zealand.
- She was invited for a seminar talk in 2014 by UC, NZ.
- She has carried out Seismic Performance evaluation of bridges by field testing and presented research findings before Bridges Committee at TRB, USA.
- She was involved in major sponsored studies in many parts of India.
- She has successfully completed research projects funded by DST, AICTE and UGC.
- She is one of the expert member in the SIT (Special Investigation Team for the Moulivakkam Building Collapse case).
- She is a fellow member of Institution of Engineers and Life member of IASE, ISTE, ACCE(INDIA) & ICI.
- She has involved in more than 50 consultancy works.

### **Research Incentive Report**

#### **Research Data of MCET Faculty**



#### **Incentive Norms**

PAPER PUBLICATION		
Q1	Rs.7500/-	
SCIE	Rs.5000 /-	
Scopus	Rs.3000 /-	

PATENT		
Granted patent (inventors in MCET)	Rs.7000/-	
Granted patent (inventors including other institutions)	Rs.5000/-	

RESEARCH FUNDING			
Range	Incentive Amount (in Rs.)		
Above 30	1.0 Lakh		
Lakh	1.0 Lakii		
>25-30 Lakh	90,000		
>20-25 Lakh	80,000		
>15-20 Lakh	70,000		
>10-15 Lakh	60,000		
>5-10 Lakh	40,000		
>3-5 Lakh	30,000		
2-3 Lakh	20,000		

CONSULTANCY		
Institution	60:40 ratio	
resources are	60% to institution 40% as	
utilized	incentive	
Institution	40:60 ratio	
resources are not	40% to institution 60% as	
utilized	incentive	

# IN HOUSE R & D Minimum seed money of Rs.1,00,000/-

#### **Research Incentive Summary**

**Publications** 

206

Rs.11,26,500/-

External Funded Project

9

Rs.2,76,000/-

Total Incentive Rs.18,27,500/-

NITTT

300

Rs.4,06,000/-

**Granted Patents** 

3

Rs.19,000/-

Sanctioning of In-House R & D

10

Rs.11,16,605/-

Consultancy \*

129

Rs.7,18,005 /-

Incentive being distributed during this function Rs.18,27,500/-

Total Amount Rs.36,62,110/-

<sup>\*</sup> already distributed

#### **Research Paper Publication**

S.No.	Dept	No. of Publications	Amount (in Rs.)
1	Auto	17	89,166
2	Civil	30	1,73,500
3	Mech	38	2,15,834
4	Mechatronics	2	10,000
5	CSE	12	60,750
6	IT	22	1,21,250
7	AI&DS	2	11,250
8	MCA	5	21,500
9	ECE	31	1,55,500
10	EEE	30	1,69,250
11	EIE	2	10,000
12	S&H	15	88,500
	Total	206	11,26,500 /-

Faculty Benefitted	
54	

Incentive Rs.11,26,500/-

S.No.	Indexing	No. of Publications
1	Q1	53
2	SCIE	135
3	Scopus	18
	Total	206

S.No.	Journal Publisher	No. of Publications
1.	IEEE	1
2.	Elsevier	35
3.	Springer	62
4.	Wiley	15
5.	Others	93
	Total	206







#### **External Funded Project**

S.No.	Dept	No.of Projects	Amount (in Rs.)
1	Auto	5	1,23,000
2	ECE	1	30,000
3	IT	1	60,000
4	Mech	2	63,000
		Total	2,76,000/-

Faculty Benefitted 18

Incentive Rs.2,76,000/-

Total granted amount: Rs.2,46,85,651/Completed Projects: 9
Ongoing Projects:4
Total Projects: 13

Rs,14,37,344/-

Department of Science & Technology-SEED Rs.12,52,687/-

Council of Scientific & Industrial Research, Extramural Research Scheme (CSIR) Rs.5,87,000/-

Naval Research Board





Rs.6,00,000/-

Entrepreneurship
Development and Innovation
Institute (EDII-TN)

Rs.3,85,000/-

UGC -Major Research Projects



#### **Granted Patents**

S.No.	Dept	No.of Patents	Amount (in Rs.)
1	Auto	1	12,250
2	EEE	1	5,000
3	Mech	1	1,750
		Total	19,000/-

Faculty Benefited 4

77 Patents were filed

Incentive Rs.19,000/-



S.No	Name of the Inventors	Title of the Patent	Indian Patent number
1.	Dr.M.Selvakumar Dr.M.Thirunavukarasu Mr.R.Vishnu Ramesh Kumar Dr.T.Ram kumar Mr.B.Kishore	Self Charging Bi-Cycle with solar panel	202141016329
2.	Dr.M.Selvakumar	Titanium-titanium boride composite as a bio material for hip, knee implants	201941019354 A
3.	Dr.Kishore Balasubramanian	A Supporter For Portable Terminal	348928-001

#### **Consultancy Details**











No. of Projects 129

Revenue Generated Rs. 1,38,46,909 /-

Revenue Shared Rs. 7,18,005 /-













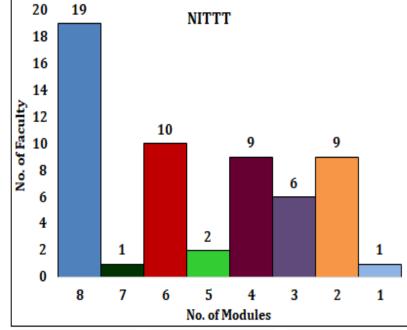


#### **AICTE-NITTTR**

S.No.	Dept.	Amount (in Rs.)
1.	Auto	16,000
2.	Civil	42,000
3.	Mech	30,000
4.	CSE	91,000
5.	IT	59,000
6.	AI&DS	8,000
7.	MCA	4,000
8.	ECE	77,000
9.	EEE	28,000
10.	EIE	11,000
11.	S&H	40,000
	4,06,000/-	

Faculty Benefitted 57

Reimbursement Rs. 4,06,000/-









#### **Department Wise R & I Incentive**

Auto:Rs.2,30,416/-

Mech: Rs.3,07,584/-

Civil:Rs.2,15,500/-

Mechatronics:Rs.10,000/-

IT: Rs.2,37,250/-

CSE:Rs.1,51,750/-

AI&DS: Rs.19,250/-

MCA: Rs.25,500/-

EEE: Rs.2,02,250/-

ECE:Rs.2,61,000/-

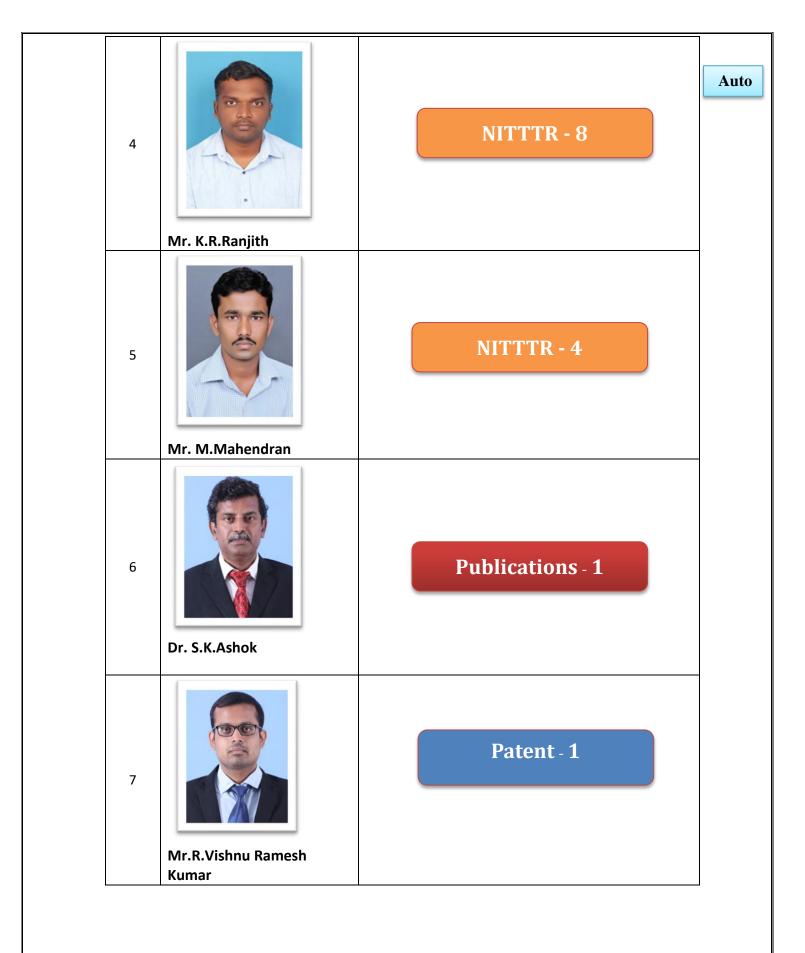
EIE: Rs.21,000/-

S&H: Rs.1,28,500/-

#### **Department of Automobile Engineering**

Category	Amount in Rs.
Publication	89,166
NITTT	16,000
Funded Project	1,13,000
Patent	12,250
Total	2,30,416 /-

S.No	Name of the faculty	Publications, Funded Projects, Patents, NITTTR
		Publications 5
1	1	Funded Project 1
	Dr. D.Shanmugam	
	Dr. M.Selvakumar	Publications - 21
		Funded Project - 4
		Patent - 2
3	Publications - 2	
		Patent - 1
	Dr. M.Thirunavukkarasu	

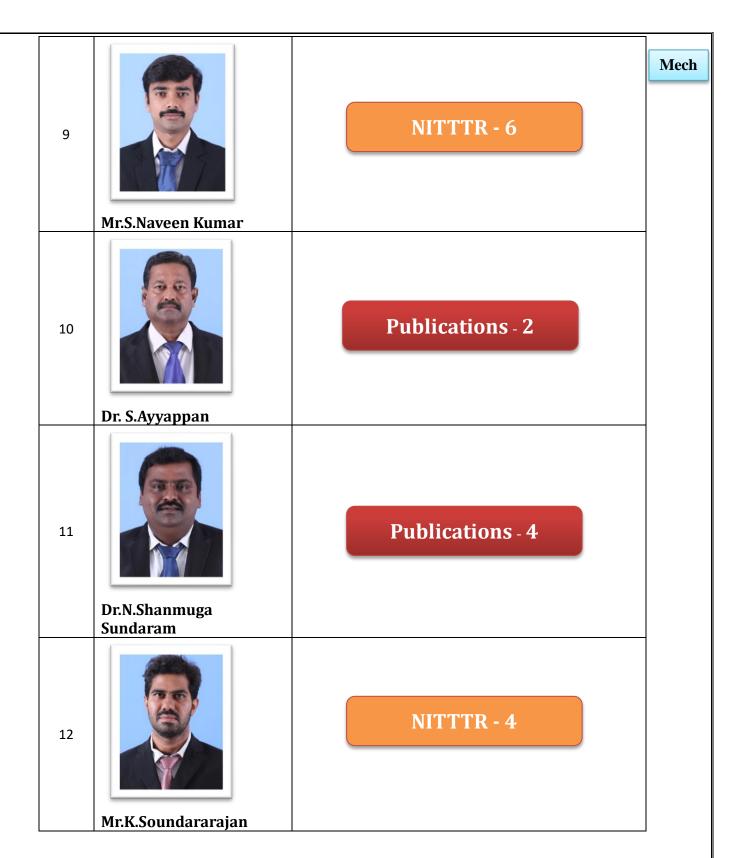


#### **Department of Mechanical Engineering**

Category	Amount in Rs.
Publication	2,25,834
NITTT	30,000
Funded Project	60,000
Patent	1,750
Total	3,17,584 /-

0.37			
S.No	Name of the faculty	Publications, Funded Projects, Patents, NITTTR	
		Publications - 32	
1		Funded Project - 1	
		Patent - 1	
	Dr.T.Ramkumar		
		Publications - 7	
2		Funded Project - 2	
	Dr.Rama Thirumurugan		
3		Publications - 9  Funded Project - 1	
	Dr. I Daiondran		
	Dr. I.Rajendran		1
4		Publications - 3	
		NITTTR - 6	
	Mr. S.V Gurupranes		











**Publications - 2** 

Dr.S.Madhusudhanan

14



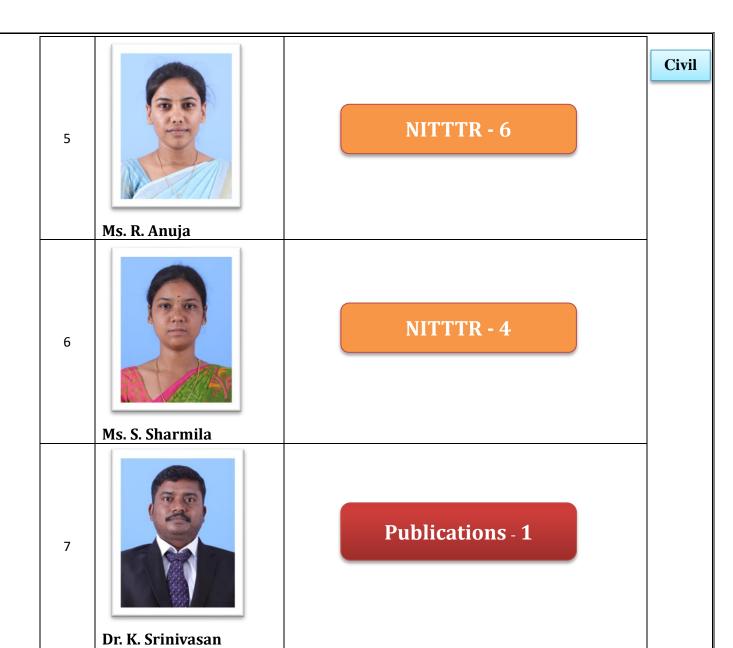
**Publications** - **1** 

1st Research Incentive Awardees and Achievements (June 2017 - Dec 2022)

#### **Department of Civil Engineering**

Category	Amount in Rs.
Publication	1,73,500
NITTT	42,000
Total	2,15,500 /-

S.No	Name of the faculty	Publications, Funded Projects, Patents, NITTTR	
1	Dr. N. Natarajan	Publications - 29	
2		Publications - 3  NITTTR - 8	
	Mr. S. Dineshkumar		-
3		NITTTR - 8	
4	Mr. A. Praveen Kumar	NITTTR - 6	
	Mr. M. Sudharsanan		



#### **Department of Information Technology**

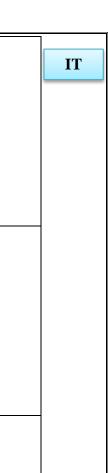
Category	Amount in Rs.
Publication	1,21,250
NITTT	59,000
Funded Project	57,000
Total	2,37,250 /-

	Name of the faculty	Publication, Funded Project, Patent
1	Dr.S.Ramakrishnan	Publications - 19  Funded Project - 1
2	Dr.A.S.Muthanantha Murugavel	Publications - 1 Funded Project - 1
3	Ms.A.G.Priya Varshini	Publications - 1  Funded Project - 1  NITTTR - 8
4	Dr.J.Ramprasath	Publications - 4



Dr.S.Ponni@Sathya







NITTTR - 2

Mr.D.Manoj Kumar

14

13



NITTTR - 2

Ms.P.Kalaivani

15

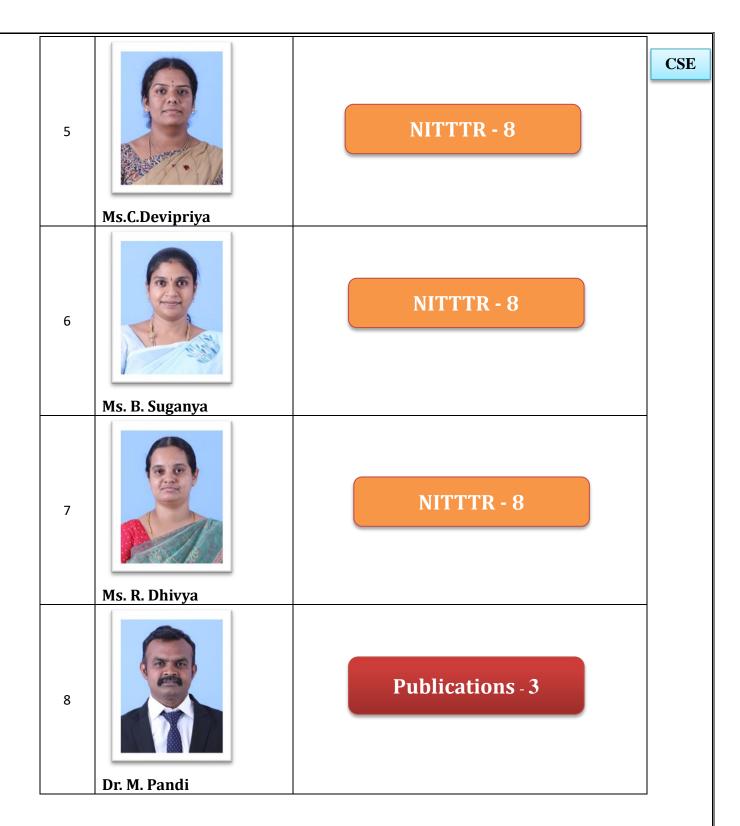


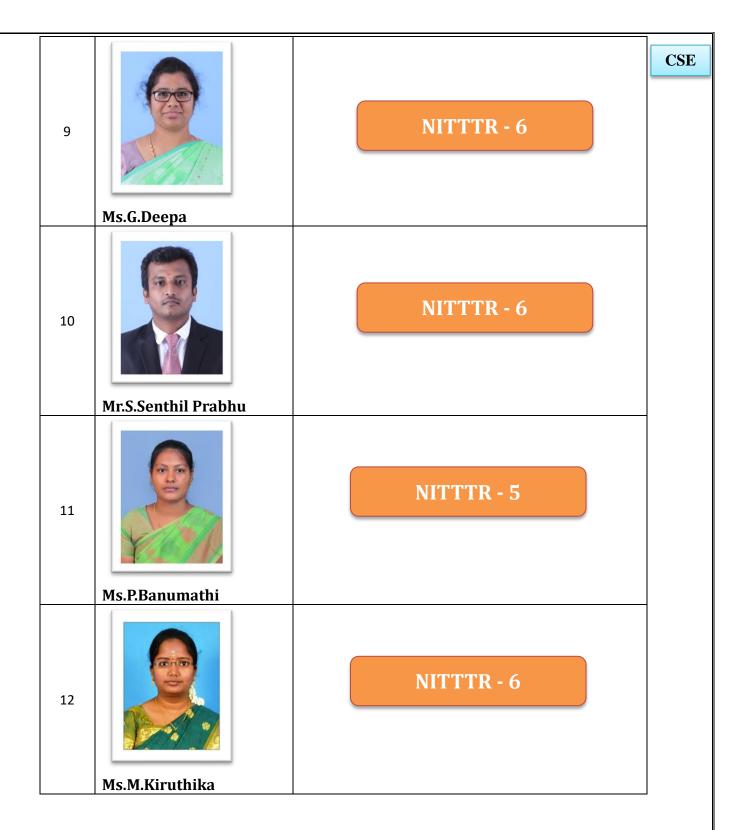
NITTTR - 1

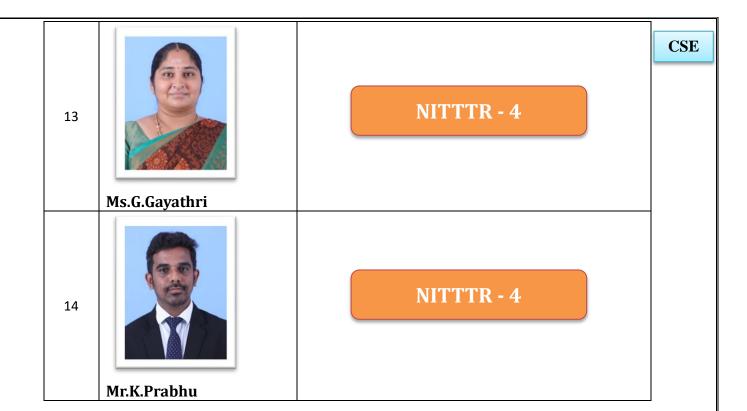
#### **Department of Computer Science and Engineering**

Category	Amount in Rs.
Publication	60,750
NITTT	91,000
Total	1,51,750 /-

0.37	NT 0.13 0 3	
S.No	Name of the faculty	Publications, Funded Projects, Patents, NITTTR
1	Dr.M.L.Valarmathi	Publications - 8
2	Dr.J. Bhavithra	Publications - 2
3	Ms.C.Jayashree	NITTTR - 8
4	Ms. T. Gowrisankari	NITTTR - 8







**Department of Artificial Intelligence and Data Science** 

Category	Amount in Rs.
Publication	11,250
NITTT	8,000
Total	19,250 /-

AI & DS

S.No	Name of the faculty	Publications, Funded Projects, Patents, NITTTR
1	Dr.S.Nithya	Publications - 4
2		NITTTR - 2
3	Ms.K.Ananthi  Ms.S.R.Indurekaa	NITTTR - 2

**Department of Master of Computer and Applications** 

Category	Amount in Rs.
Publication	21,500
NITTT	4,000
Total	25,500 /-

MCA

S.No	Name of the faculty	Publications, Funded Projects, Patents, NITTTR
1	Dr. R. Muthusami	Publications - 5
2	Mrs.V.Sathya	NITTTR - 2

**Department of Electrical and Electronics Engineering** 

Category	Amount in Rs.
Publication	1,69,250
NITTT	28,000
Patent	5,000
Total	2,02,250/-

S.No	Name of the faculty	Publications, Funded Projects, Patents, NITTTR	
1	Dr B Kishore	Publications - 13  Patent - 1	
2	Dr M Kaliamoorthy	Publications - 4	
3	Dr J Amudha	Publications - 4	
4	Mr J Nagarajan	Publications - 1  NITTTR - 6	





**Publications - 4** 

Dr K Saranya





**Publications - 3** 

**Dr B Vinoth Kumar** 

7



**Publications - 1** 

NITTTR - 3

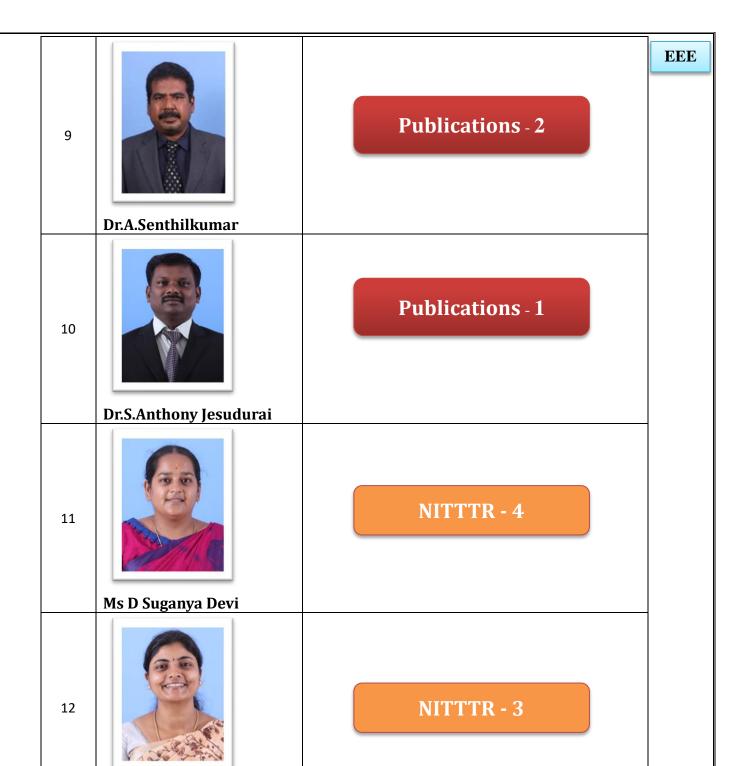
Dr K Rameshkumar

8



**Mr T Sathesh Kumar** 

**Publications - 2** 





13



NITTTR - 2

Ms N.Aarthi

14



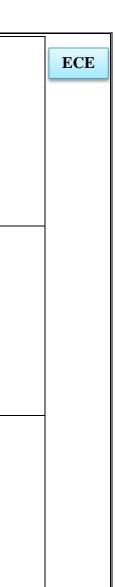
**Publications** - 1

Dr.L.Chitra

**Department of Electronics and Communication Engineering** 

Category	Amount in Rs.
Publication	1,55,500
NITTT	77,000
Funded Project	28,500
Total	2,61,000 /-

S.No	Name of the faculty	Publications, Funded Projects, Patents, NITTTR
1	Dr.K.N.VijeyaKumar	Publications - 17
2	Dr.N.Saravanakumar	Publications - 8
3	Dr.K.Mohaideen Abdul Kadhar	Publications - 5  NITTTR - 6
4	Dr.S.Bharathi	Publications - 1  Funded Project - 1





**Publications - 5** 

6

**Publications - 2** 

Dr.B.Kannapiran

7



**Publications - 2** 

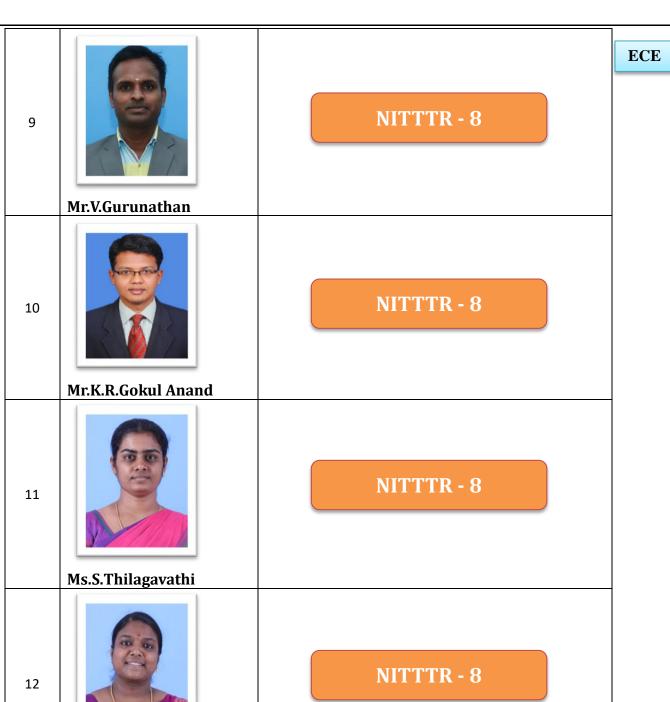
Dr.C.Kalamani

8



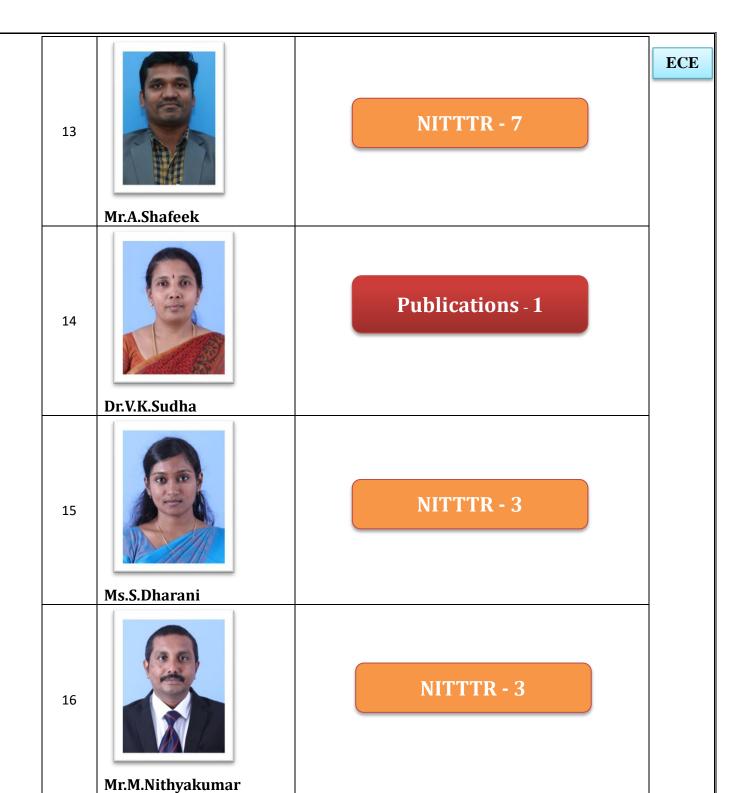
Ms.T.Sathiyapriya

NITTTR - 8





Ms.K.C.Raja Rajeshwari



**ECE** 





Mr.M.Vignesh

NITTTR - 2

**Department of Electronics and Instrumentation Engineering** 

Category	Amount in Rs.
Publication	10,000
NITTT	11,000
Total	21,000 /-

S.No	Name of the faculty	Publications, Funded Projects, Patents, NITTTR
1	Dr.K.Vijayakumar	Publications - 4
2	Mr.T.Gowtham	NITTTR - 4
3	Mr.G.Karthikeyan	NITTTR - 3

#### **Department of Science & Humanities**

Category	Amount in Rs.
Publication	88,500
NITTT	40,000
Total	1,28,500 /-

S.No	Name of the faculty	Publications, Funded Projects, Patents,
	·	NITTTR
1	Dr. B. Saravanakumar	Publications - 12
2		Publications - 5
		NITTTR - 8
	Dr. S. Parveen	
3		NITTTR - 8
	Dr. B. Maheswari	
4		NITTTR - 6
	Dr. B. Poorani	





NITTTR - 2

**Publications - 1** 

Dr. J Johnson William





**Publications - 1** 

NITTTR - 2

Dr. M. Mariyappan

7



NITTTR - 2

**Publications - 1** 

Dr. B. Bala Vijaya Priya

8



Dr. P. A. Periyasamy

1<sup>st</sup> Research Incentive Awardees and Achievements (June 2017 - Dec 2022)







**Publications** - 1

Dr.N. Karthikeyan

10



**Publications** - 1

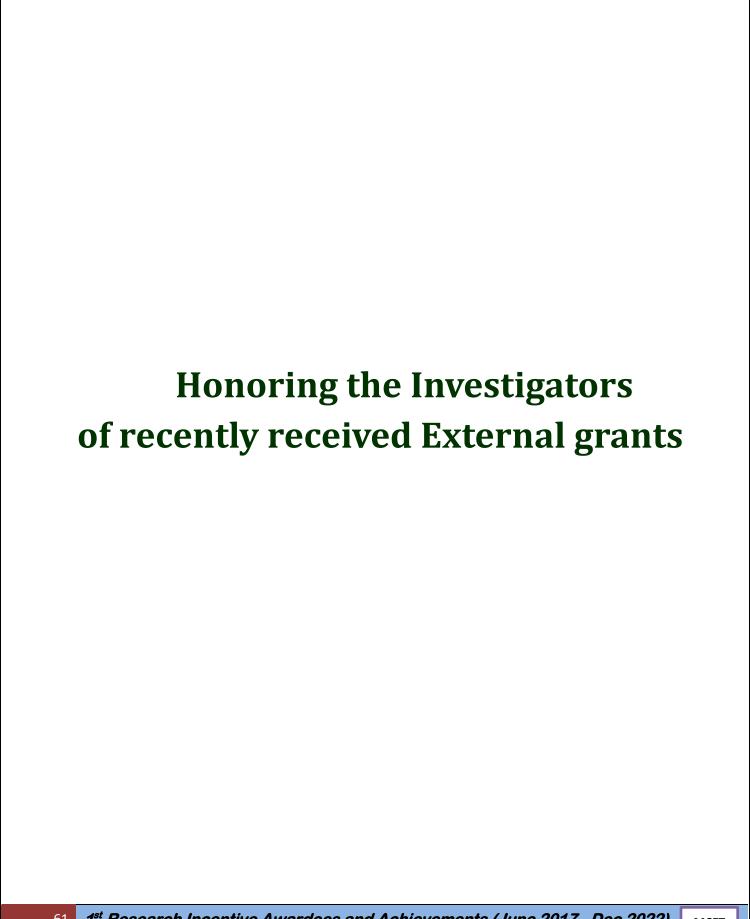
Dr. V.Umadevi

# **Incentives for Supporting Staff**

#### For the support in doing Funded Project

Category	Amount in Rs.
Funded Project Support	31,500

S.No	Name of the faculty	Department	
1.	Mr.B.Rangarajan	Automobile Engineering	
2.	Mr. A.Ajith kumar	Automobile Engineering	
3.	Mr.S.Hari Prasath	Automobile Engineering	
4.	Mr.C.Pradeep Kumar	Mechanical Engineering	
5.	Mr.K.Dinesh Kumar	Information Technology	
6.	Mr.J.Antony Wilson	Electronics and Communication Engineering	



# Design and Development of healthcare equipment MEITY

Received a research grant of Rs.1.40 Crore (Plus Rs.28,00,000 worth IC

design EDA tools at free of cost)

Dr.K.N.Vijeyakumar/AIML
Dr.R.Sudhakar/ECE
Dr.N.Saravanakumar/ECE
Dr.B.Vinoth Kumar/EEE
Dr.K.Saranya/EEE
Mr. Talluri Vineel Jessy/ECE



Chief Investigator of the project is Dr. K.N. Vijeyakumar, Professor



Project area

Design and Development of healthcare equipment



Sponsoring agency

Scheme

Chips to startups- Category -1

# Nanostructured bi-functional metal Schiff base complexes and its spinel oxides for biological and energy storage applications DST

Received a research grant of Rs. 33,02,620

Dr.S.Parveen/ Chemistry
Dr.B.Saravanakumar/
Physics Mentor



Dr.S.Parveen - Women Scientist Scheme (WOS - A)

#### Project area

Nanostructured bi-functional metal Schiff base complexes and its spinel oxides for biological and energy storage applications



Scheme

Women Scientist Scheme (WOS - A)

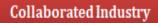
## Development of EV-Fiber Rotavator for Coir Industries – EDII



Dr.M.Selvakumar Assoc. Prof./Auto



Chief Investigator of the project is Dr.M.Selvakumar -Assoc. Prof./Auto



Taark Equipments Ltd



Scheme

Innovation Voucher Programme

#### Research Awards

#### **Faculty Research Excellence award**



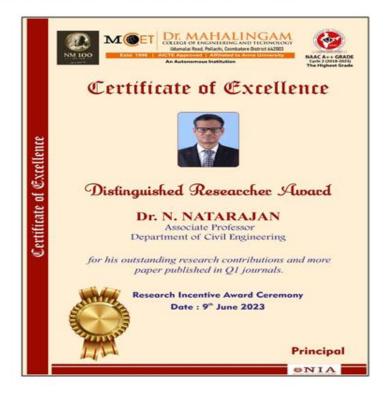
Dr. M. Selvakumar Associate Professor Automobile Engineering



#### **Distinguished Researcher Award**



Dr. N. Natarajan Associate Professor Civil Engineering



#### **Best Research Paper Award - Engineering**



Dr. T. Ramkumar Assistant Professor (SG) Mechanical Engineering



#### Best Research Paper Award - S & H



Dr. B. Saravanakumar Assistant Professor (SS) Physics



#### **Emerging Young Researcher Award**



Mr. S. Dineshkumar Assistant Professor Civil Engineering



#### **Emerging Young Researcher Award**



Mr. S.V. Gurupranes
Assistant Professor
Mechanical
Engineering



#### **Best Expert Reviewer Award**



Dr.B.Kishore
Assistant Professor (SG)
Electrical & Electronics
Engineering



#### **Highest Cited Researcher Award**



Dr. S. Ramakrishnan Professor/ Dean - R&I



#### **Doctoral Completion Award**



Dr. J. Ramprasath Assistant Professor (SS)/Information Technology & Head/ITeS





# **In-house R&D projects**

Faculty Benefited 10

Seed Money **Rs.11,16,605 /-**

S.No.	Faculty In-charge & Department	Project Title	Duration (in Years)	Sanctioned Amonut (in Rs.)
1.	Dr.T.Ramkumar, AP(SG)/Mechanical	Design and Development of PCM-Nano Composite for Solar Water Heater Application	1	1,15,000
2.	Mr.M.Gideon Ganesh, AP(SS)/Mechanical	Design and fabrication of polymer-based 3D printing	1	1,10,000
3.	<u> </u>	Experimental Investigation of Bio-oil Produced from continuous Flash Pyrolysis of Biomasses	2	1,10,000
4.	Mr.S.Syed Masoodhu, AP/Civil	Hydraulic Performance of Geosynthetic Clay Liner with Modified Clay by Polymeric Hydrogels	1	1,10,000

# In-house R&D projects (Continued.,)

S.No.	Faculty In-charge & Department	Project Title	Duration (in Years)	Sanctioned Amonut (in Rs.)	
5.	Mr.K.R.Gokul Anand, AP/ECE	Customized Cultivation using Smart Aeroponics System	1	1,04,551	
6.	Dr.K.Rameshkumar, AP/EEE	Design and Development of Solar Photovoltaic fed Electric Vehicle Charging Station with Improved Power Quality using Virtual Active Power Filter	2	1,15,000	
7.	Dr.A.Noble Mary Juliet, ASP/CSE	Web/Mobile Application for Multi modal Mark entry and Hall booking service automation	1.5	1,15,000	
8.	Dr.A.Shanmugapriya, AP/S&H (Chemistry)	Synthesis and anticancer activity of binuclear Ni(II) & Pd(II) complexes	1.5	1,07,654	
9.	Dr.J.Johnson William, AP/S&H (Physics)	Microwave Engineering of Binary Metal Compounds and its carbon composites as Electrode Materials for Energy Storage and Photocatalytic Applications	1	1,15,000	
10.	Dr.M.Mariyappan, AP/S&H (Physics)	Silver Nanoparticles Embedded Rare Earth Doped Borophosphate Glasses for Lasers, Wleds and Amplifiers	1	1,14,400	
	Total (Rs.) 11,16,605/-				

## **Photos taken during the Ceremony**











