

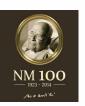
## Dr. MAHALINGAM

COLLEGE OF ENGINEERING AND TECHNOLOGY Udumalai Road, Pollachi, Coimbatore District 642003

Established in 1998 • Approved by AICTE • Affiliated to Anna University

**An Autonomous Institution Since 2011** 

(A DIVISION OF NIA EDUCATIONAL INSTITUTIONS)



# OFFICE OF DEAN RESEARCH & INNOVATION 2023-24



#### Dr. Mahalingam College of Engineering & Technology, Pollachi

#### Vision and Mission of the Institute

#### Vision

We develop globally competitive workforce and entrepreneurs

#### Mission

Dr.Mahalingam College of Engineering and Technology, Pollachi endeavors to impart high quality; competency based technical education in Engineering and Technology to the younger generation with the required skills and abilities to face the challenging needs of the industry around the globe.

This institution is also striving hard to attain a unique status in the international level by means of infrastructure, state-of-the-art computer facilities and techniques.

#### Vision and Mission of the Office of Dean Research & Innovation

#### 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, knowledge-sharing sessions, seminars, faculty development programs, workshops, inter and intra-college technical symposiums, conferences, and openhouse 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.

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#### **Research Incentive Awards Ceremony- 09.06.2023**

#### **Chief Guest:**

Dr. C. Umarani, Director, Centre for Research, Anna University, Chennai





















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## RESEARCH INCENTIVE AWARDS

Publications and Funded Projects Incentive

Rs. 18,27,500/-

In - House R & D

Rs. 11,16,605/-

Shared Consultancy Revenue

Rs. 7,18,005/-

## Total Incentive **RS. 36,62,110/-**

**NUMBER OF FACULTY MEMBERS BENEFITED: 112** 



Faculty Research Excellence Award
Dr. M. SELVAKUMAR
Associate Professor
Automobile Engineering



Highest Cited Researcher Award Dr. S. RAMAKRISHNAN Dean - R & I



Distinguished Researcher Award
Dr. N. NATARAJAN
Associate Professor
Civil Engineering



Best Research Paper Award
Dr. T. RAMKUMAR
Assistant Professor (SG)
Mechanical Engineering



Best Research Paper Award Dr. B. SARAVANAKUMAR Assistant Professor (SS) / Physics Science and Humanities



Best Expert Reviewer Award
Dr. B. KISHORE
Assistant Professor (SG)
Electrical and Electronics Engg.



Emerging Young Researcher Award
Mr. S.V. GURUPRANES
Assistant Professor
Mechanical Engineering



Emerging Young Researcher Award
Mr. S. DINESHKUMAR
Assistant Professor
Civil Engineering



Doctoral Completion Award
Dr. J. RAMPRASATH
Assistant Professor (SS)
Information Technology

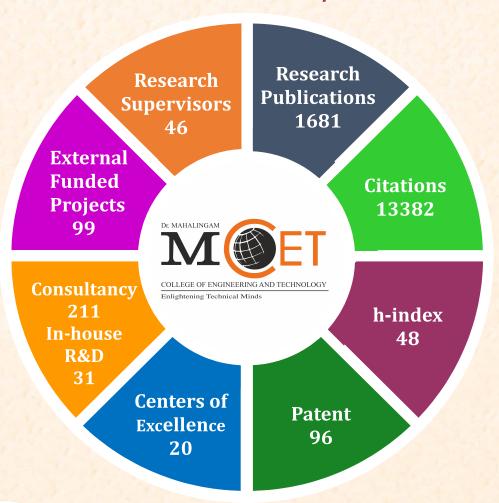
Congratulations

**黎NIA** 

### **Research Incentive Award ceremony - Special Awards**

Name of the Award	Name of the Faculty
Faculty Research Excellence Award	Dr. S. Selvakumar, ASP/Auto
Highest Citation award	Dr. S. Ramakrishnan, Dean R&I
Distinguished Researcher Award	Dr. N. Natarajan, ASP/Civil
Best Research Paper Award	Dr. T. Ramkumar, AP(SG)/Mech Dr. B. Saravanakumar,AP(SS)/S&H
Best Reviewer Award	Dr. B. Kishore, AP(SG)/EEE
Emerging Young Researcher Award	Mr. S. V. Gurupranes,AP/Mech Mr. S. Dineshkumar,AP/Civil
Doctoral Completion Award	Dr. J. Ramprasath, AP(SS)/IT

#### Research Data of MCET Faculty - 2017 - 2023



#### **RESEARCH INCENTIVE SUMMARY**

**Publications** 

206

Rs.11,26,500/ -

External Funded Project

9

Rs.2,76,000/-

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/-

Total Incentive Rs.18,27,500/ -

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

\*Already Distributed

Total Amount - Rs.36,62,110/-

#### **RESEARCH PAPER PUBLICATION**

S.No.	Dept	No. of Publications	Amount (in Rs.)
1	Auto	17	89,166
2	Civil	30	1,73,500
3	Mechanical	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 /-

	<b>Faculty Benefitted</b>
	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







WILEY

#### **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



UGC
University Grants Commission

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 Benefitted
4

Incentive Rs.19,000/-

77 Patents were filed



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 /-











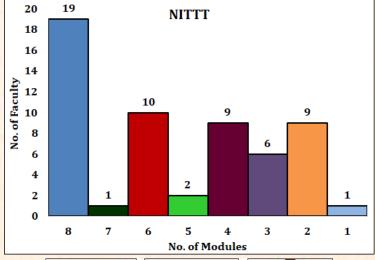




#### **AICTE-NITTT**

S.No.	Dept.	Amount (in Rs.)
1.	Auto	16,000
2.	Civil	42,000
3.	Mechanical	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
	Total	4.06.000/-

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/- Al&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/-

## 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 Amount (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.		Experimental Investigation of Biooil 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
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, Welds and Amplifiers	1	1,14,400
			Total (Rs.)	11,16,605 /-

#### **Clippings from Newspapers**

## டாக்டர் மகாலிங்கம் பொறியியல் கல்லூரியில் பயிலரங்கு

பொள்ளாச்சி, ஆக.1: டாக்டர் மகாலிங்கம் பொறியியல் மற்றும் தொழில்நுட்பக் கல் லூரியில் இயந்திரவியல் மற்றும் ஆட்டோ மொபைல் துறை சார்பாக பேராசிரியர்க ளுக்கு பயிலரங்கு நடைபெற்றது.

நிகழ்ச்சிக்கு, கல்லூரி முதல்வர் கோவிந் தசாமி தலைமை வகித்தார். கல்லூரி டீன் ராமகிருஷ்ணன் வரவேற்றார். பேராசிரியர் ஜெயராஜ் அறிமுக உரையாற்றினார்.

சென்னை காப்புரிமைகள் மற்றும் வடி வமைப்புகளின் துணைக் கட்டுப்பாட்டா எர் பழனிசாமி, கொல்கத்தா காப்புரிமை கள் அலுவலக இணை கட்டுப்பாட்டாளர் சர்கார் ஆகியோர் சிறப்பு விருந்தினர்களா கப் பங்கேற்றனர். நிகழ்வில், காப்புரிமை நுட்பங்கள், செயல்முறைகள் குறித்து விளக் கப்பட்டது.

## ஆராய்ச்சிகள் கல்வியறிவை மேம்படுத்தும்!

பொள்ளாச்சி, ஜூன் 14-பொள்ளாச்சி மகாலிங் <sub>கம்</sub> பொறியியல் கல்லூ நிற்ல், ஆராய்ச்சி ஊக்கு ஹ்பு விருது வழங்கும் வீரா நடந்தது.

என்.ஐ.ஏ., கல்வி நிறு வனங்களின் செயலாளர் ரமசாமி வரவேற்றார். என்.ஐ.ஏ., கல்வி நிறு வனங்களின் தலைவர் மாணிக்கம் தலைமை வகித்தார். கல்லூரி முதல் வர் கோவிந்தசாமி முன் னிலை வகித்தார்.

சென்னை அண்ணா பல் கலை ஆராய்ச்சி மைய இயக்குனர் உமாராணி பேசுகையில், ''ஆசிரியர் கள் தங்களின் ஆராய்சர் நடவ டிக்கை ககின் வாயிலாக, கல்வி அறிவை மேம்படுத்தவும், படைப் பாற்றலை பெறவும், இன் றியமையாத திறன்களை வளர்க்கவும் முடியும். கடின உழைப்பு என்பது ஒரு தனிநபரின் தரத்தை மேம் படுத்து வதற்கான ஒரே மந்திரமாகும்,'' என் றார்.

எம். சி. இ. டி., கல் லூரியின் ஆராய்ச்சி மற்றும் கண்டுபிடிப்பு டீன் ராமகிருஷ்ணன், ஆராய்ச்சி ஊக்க அறிக்கை படித்தார். தொடர்ந்து, ஆய்வு கட்டுரை வெளியீடுகளுக்காக, 11 லட்சத்து, 26 ஆயிரத்து, 500 ரூபாய் மதிப்பிலான ஊக்கத்தொகை மற்றும் விரு துகளை, 54 ஆசிரியர்கள் பெற்றனர்.

என்.ஐ.டி.டி., தொகு இகளை நிறைவு செய் ததற்காக, 57 ஆசிரி யர்கள், 4 லட்சத்து, வதிப் பிலான ஊக்கத்தொகை பெற்றனர். மேலும், 18 ஆசிரியர்கள், வெளிப் புற நிதியுக்கர், 2 லட்சத்து, 76 ஆயிரம் ரூபாய் ஊக்கத் தொகையாகவும், ஐந்து ஆசிரியர்கள், காப்புரிமை பெற்றதற்காக, 19 ஆயிரம் ரூபாய் ஊக்கத் தொகையாக வும், ஐந்து ஆசிரியர்கள், காப்புரிமை பெற்றதற்காக, 19 ஆயிரம் ரூபாய் ஊக்கத்தொகையும்

கல்லுரரி தாளாளர் ஹரிஹரசுதன், கல்வி மற்றும் தன்னாட்சி டீன் செந்தில்குமார் மற்றும் பேராசிரியர்கள் பங்கேற்

### எம். சி. இ. டி. , க்கு நிதி ஒப்புதல்

பொன்னாக்கி

மத்திய அரசின் மின்னணு மற்றும் தகவல் தொழில்நுட்ப அமைச்சகம் சார்பில், 'சிப்ஸ் டூ ஸ்டார்ட் அப்' திட்டத்தின் வாயிலாக, சுகா தார உபகரணங்களின் வடிவமைப்பு மற்றும் மேம்பாட்டு ஆராய்ச்சி திட்டத்தை செயல்ப டுத்த, ஒரு கோடியே, 39 லட்சத்து, 89 ஆயிரம் நிதியை, பொள்ளாச்சி மகாலிங்கம் பொறியியல் கல்லூரிக்கு வழங்க நிர்வாக ஒப்புதல் அளித் துள்ளது.

இந்த ஆராய்ச்சியானது எம்பெடேட் சிஸ்டம் வடிவமைப்பு உற்பத்தியில், முன்னணி வகிக்கும் தொழில்துறையுடன் இணைந்து மேற்கொள்ளப் பட உள்ளது. இத்திட்டத்தின் முதன்மை ஆய்வா ளராக, கல்லுரரியின் மின்னணு மற்றும் தகவல் தொடர்பு துறையினர் பேராசிரியர் விஜயகுமார் உள்ளார்.

'சி2எஸ்' திட்டம் லெவல் டிசைன் நுட்பத்தை புகுத்துவதன் வாயிலாக. திருப்பு முனையை ஏற் படுத்தும் என கல்லூரி நிர்வாகத்தினர் தெரிவித் தனர். கல்லூரியின் தலைவர் மாணிக்கம், தாளா எர் ஹரிஹரசுதன், செயலர் ராமசாமி, முதல்வர் கோவிந்தசாமி பேசினர்.



<sub>மகாலங்கம்</sub> தொழலநுட்பக கல்லூரியில் ஆராய்ச்சி ஊக்குவிப்பு விருது வழங்கும் விழா



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பய்கலைக்குக்கின் ஆராம்சி மைய இயக்குறின் அராம்சி நெய்டி விந்திகோராக கைந்திகொண்டு, ஆசிரியர்கள் தங்கமின் ஆராம்சி உயடிக்கைகளின் மூலம் கண் அரியை மேம்படுத்தும், மடைப்பாற்றமைப் பேறவும், இன்றியமைபாத இறக்கை கைர்த்தலும் முடியிர்களை களர்த்தலும் முடியிர்களை அவர் எடுத்துவரத்தார்.

வாகுக்கு சொரவிக்கப்பட்டனர்.

வெளிப்புற நிற்புதன் நிட்டங்கள், தினிய மற்றும் சியரித்ச ஆப்வுக் கட்டுவர வெளிப்பூறை, சுப்புரிகள், சுப்புரிகள் பெற்றும் மற்றும் என்று ஒடி ஒடி (VIIII) நொறிக்கவை நிறைவு செய்தும் போன்ற பக்கிவற ஆராம்கி நடவுக்கைகளில், எம்.கி.இ.டி. (MCE) அதிரியர்களின் பாருரப்பட்ட



#### டாக்டர் மகாலிங்கம் கல்லூரியில் விருது வழங்கும் விழா



ஆராய்ச்சியில் ஈடுபட்ட மகாலிங்கம் கல்லூரி ஆசிரியருக்கு சான்றிதழை வழங்குகிறார் அண்ணா பல்கலைக்கழக ஆராய்ச்சி மைய இயக்குநர் உருராணி

பெள்ளனர்க் ஐங்க " போன்னான டாக்டர் மகால்கம் பொற்ற ஸ்ட்டி இரில்றுட்பக் கல்லுரிலில் ஆராய்சிலில் பக்கேற்ற துரியரி ஞிக்கு விருது வழங்கும் விழர வெள்ளிக்கிறமை நடைபெற்றது. என்று கல்லி நிறுவன்களின் தலைய் பயானிக்கம் தலைய வடுத்தார். செயலர் ராமசாமி வரவேற்றார். கல்லூரி முதல்வா தோலி அரம் வருத்துகளை வழக்கினர். கல்லூரி இருக்கள் தோலி வின் சோயிஸ்டன் கில் விளக்க உரையாற்றினார். சென்னை அன்று மல்லைக்குக்கு ஆராய்சி அமை இயிக்குதல் வராரானி நிறபு டின் நிறுவனிக்கின் தானானர் தாரிவரசுதன் வருத்துரை வழக்கினார். விழாவில் பக்கேறு கூறைவுறைகளைக் சேர்த்த 112 ஆகியர்களில் ஆராய்சி முயற்சிகளில் சிறந்த பங்களிப்புக்காக ரூ. 18 வடத்து 2 ஆர்வுக் கட்டுறை வெளியிறகர், காப்புரிமை பெறுதல் போன்ற ம கடியர் அடியர்களை கைக்கு தொகை மற்றும் விருதுகள் வரு ஆர்வுக் கட்டுறை வெளியில் இரு நடக்கியப்படது, தன்னாட்சி மக் கேறு ஆராய்சி நடவுக்கைகளில் ரிமுப்புக்கு இரியர்களின் கரைக்கு கண்டி பக்கேறு அரகைக்குக்குக்குர்கள்கள்கள் கிரும்பட்டது, தன்னாட்சி மக் கோல் பக்கேறு அரகைகள்கள் கடியர்கள் கடியர்கள் கிருக்குக்குக்கார். இவிசிலில் பக்கேறு அறைத் தலைவர்கள், ஆசியியர்கள்கிக்கின்



■பொள்ளாச்சி மகாலிங்கம் பொறியியல் கல்லூரியில் நடந்த விழாவில், ஊக்குவிப்பு விருது பெற்ற ஆசிரியர்கள்.

#### ூ.சிரியர் திறன் வளர்க்க ஆராய்ச்சி அவசியம், அண்ணா பல்கலை இயக்குனர் அறிவுரை



ஆறிப்பர்கள் நங்கள் நிறுக்களை மனர்துக் கொண்டி ஆராப்சிக்கள் மின்ற கூறியமானநாகும் என அன்னை பக்கலை இயக்குவர் அறிவுறை வறுக்கினர். போர்வாகில் நோர்வாகி வக்குறியும் மற்றும் அராப்சி ஊக்குகியு விருது அராப்சி ஊக்குகியு விருது அறுக்கும் கிறு நேறும் நாட்டிற்றது. அறைகளை கூறைகளை சேர்ந்த 12 ஆறியான அடைபடிற்ற கானப்படும், ஆராப்சி மற்றும் பிற முயற்களில் நிறுக்

112 ஆரியாகர் அடைபான் கானப்பட்டு அரப்சில் மற்றும் நிற முயற்சிகளில் நிறத் மங்கபியிற்காக அர்றும் கிருதுகள் குணியத்திற்குமை மற்றும் கிருதுகள் தெனியத்திற்குக் கூட்டியுக் கட்டுரை செனிறிக்குக் கூட்டியுக் கட்டுரை செனிறிக்க கூட்டியுக்கும் போற்கும் போன்ற பக்கியுள் போறிக்கம் போறியியல் கல்லுளி புராணிய்டாக்கில் நேருக்கும் நடித்தப்படுகிறது.

இயக்குத் உட்கரசனி அ.1 ப்பாகர் தங்களின் விரு அறியை செய்திகள், மிரு சந்தை பெற்றல், சிரு முற்றவர் பிருவர் சிரு முற்றவர் சிருவர் சிருவர் அரியிக்கின் மிக ஆக்கிகள் மிக ஆக்குக்கின் மிக ஆக்குக்கின் மிக ஆக்குக்குக்கின் செய்தில் செய்திற்றுக்குக்குக்கின் கைக் சிகம்படுத்தனத்தனை இடி மேற்படுத்தனத்தனை இடி மேற்படுத்தனத்தனை இடி மேற்படுத்தனத்தனை இடி மேற்படுத்தனத்தனை இடி சிருவர்கள் கைக் சிக்கின் முறியே மாகிய மாகியில் காகியில் கைக் சிக்கின் முறியே மாகியில் கைக்

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Dr.K.N.Vijeyakumar - Professor, ECE

Title of the Project: Design of 16 channel High gain, Low Power, Low Noise Neural Signal Amplifier Front End Using SCL's 180nm CMOS Fabrication Technology for EEG Monitoring System

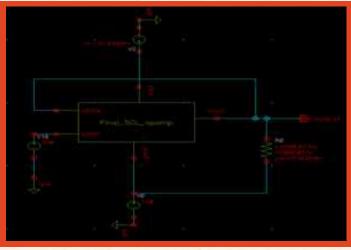
Funding Agency and Scheme— MEITY & Chips to Startup (Category – I), Month & Year of Sanction - May 2023, Project Duration – 3 Years, Sanctioned Amount - Rs. 1,40,00,000/-

Recently, there is a huge demand for low-cost battery-operated technologies for monitoring and recording of neural signals. In general, neural signals are too weak with exceptionally low amplitude having a bandwidth of upto 1 KHz. Hence, processing of neural signals requires a high gain amplifier as

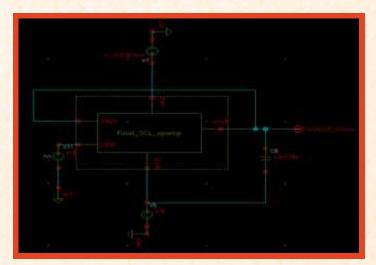
the first stage. Generally, the gain of Neural Signal Amplifier is typically maintained between 80 to 90 dB. In addition, the noise efficiency factor of the neural amplifier should be low to produce sufficient signal power at the output.

CMOS technology is preferred for the design of cost-effective High gain, Low Power, Low Noise Neural Signal Amplifier for medical applications. The design of CMOS ICs involves correlation between circuit parameters viz., bandwidth, gain, power, maximum offset voltage, power supply rejection ratio, etc. and the feature size. To minimize feature size approximation  $g_m/I_d$  technique is used in design of Neutral front end IC. A database that defines the MOS transistor characteristics viz., transconductance, feature size, output current, current density is created. Using the database the feature size of the MOS transistors in the design are chosen for the specification. From the chosen overdrive voltage and characteristic tables,  $f_\tau$  and gain are estimated.

Outcome: Targeted Power Consumption of the proposed 16 channel High gain, Low Power, Low Noise Neural Signal Amplifier front end chip will be 80mW.



**DC Test bench for Proposed Opamp** 



Transient Test Bench for Proposed Opamp



Dr. S. Parveen, Women Scientist (DST-WOS(A)), S&H

Title of the Project: Nanostructured bi-functional metal Schiff base complexes and its spinel oxides for biological and energy storage applications

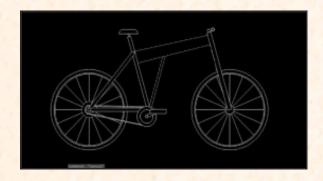
Funding Agency and Scheme – DST - Women Scientist Scheme, Month & Year of Sanction - April 2023, Project Duration – 3 Years, Sanctioned Amount - Rs. 33,02,620/-

The Bioinspired Material Research Laboratory is constructed to carry out the DST project at Dr. Mahalingam College of Engineering and Technology. A Research fund of Rs. 33,02,620/- was received under the Women Scientist Scheme(DST-WOS(A)). This laboratory is equipped with Muffle furnace, Hot air oven with Vacuum pump and Weighing balance as principle equipments. A part of this laboratory is allocated for the Wet lab, to synthesis new materials. This lab was inaugurated by Dr.C.Ramaswamy, Secretary, NIA Institutions on 28th July, 2023.









Dr.Ramathirumurugan, Professor & HOD I/C, Department of Mechanical Engineering

**Title of the Project**: Self Recharging Internal Frame Electric Bicycles Funding Agency and Scheme — Incubation Component of MSME Innovative Scheme - MSME IDEA HACKTHON 2.0, Month & Year of Sanction - August 2023, Project Duration — 1 Year, Sanctioned Amount - Rs. 5, 75,000/-

**External Battery and Control Systems:** The battery and control systems for the motor and battery are typically fixed externally. This means that these crucial components are exposed and not integrated into the vehicle's design.

**Safety Concerns:** The external placement of the battery and control systems poses safety concerns. Both the rider and the system itself could be at risk due to their exposed positions. Here are some potential safety issues:

**Physical Vulnerability:** External components are more susceptible to physical damage from accidents, weather conditions, or other external factors. This can compromise the safety and functionality of the electric vehicle.

**Theft and Vandalism**: Exposed components are easier to tamper with or steal, which can lead to security issues for the rider and potential financial losses.

**Proposal for a Concealing Frame:** To address these safety concerns, this work proposes the development of a specialized frame for the electric bicycle. This frame would have the primary function of concealing the battery and control systems. In other words, these critical components would be integrated into the frame itself, making

them less visible and less vulnerable to external factors. The proposed frame should not only hide the battery and control systems but also provide sufficient space to securely house these components. Adequate space is essential to ensure that the components fit well within the frame and can be safely protected.

**Design and Validation:** The importance of designing and validating this new frame concept means that the proposed frame that not only conceals the components but also ensures that they continue to function optimally within this new design. This involves testing the frame's durability, impact resistance, and overall safety.

Outcome of the project:Development and validation of a frame that can hold the battery and other control system internally.

**Dr.RamaThirumurugan**, has also received the research grant of Rs.20,000/- from Council of Scientific & Industrial Research for conducting Symposium/Conference — SEP 2023 — Electric Vehicle (EV) Technologies and Battery Management System during Oct 21-22, 2023 at Dr.Mahalingam College of Engineering & Technology, Pollachi.





Dr.M.Selvakumar —ASP, Automobile Engineering Development of EV-Fiber Rotavator for Coir Industries
Funding Agency and Scheme — Entrepreneurship
Development and Innovation Institute (EDII) - Innovation
Voucher Programme (IVP), Industry Partner: Taark
Equipments Pvt Ltd, Pollachi

Month & Year of Sanction - May 2023, Project Duration — 1 Year

Sanctioned Amount - Rs. 3,21,000/-

#### **Objectives:**

- To establish Electric Vehicle instead of combustion engines.
- To reduce damages to the fibres caused by running heavy vehicles during this fiber mixing process.
- To reduce operating and maintenance cost of the vehicle.
- To reduce production of harmful gas while running the vehicle.

#### Scope:

In coir industries mostly tractors are used for Material handling, mixing of fibres during Solar drying, cultivator to fluff the moist coconut peat, pile of Coconut fibres and Peat.

From that we can understand the usage of tractors plays main roll in coir industries. And all this usage consumes large amount of fuel and emits harmful gases like unburned hydrocarbons, nitrogen oxides (Nox), etc. We all know that nowadays automobile industries are moving towards electrically operated vehicles, by driving an electrical vehicle can helps us to reduce carbon footprint because there will be zero emissions at low cost. This gave us an idea for replacing "Tractor — Fibre Rotavator" used in Coir industries for mixing fibre during Solar drying process with "Electrically Powered - Fibre Rotavator Vehicle" it subsequently reduces pollution and operating cost.

It is a three-wheeled battery-operated electric vehicle attached to the Coco Rotovator setup. Powered by Lithium Ferro-phosphate (LFP) and Lead Acid Battery with PMSM motor for High energy efficiency and Durability with smooth operation. And implement is attached to the vehicle. The implement is powered by a PMDC motor to ensure constant RPM for better results in spreading operation. It has around 40 bets to do the work quickly and efficiently with less power. Implement is controlled by an electronic actuator used to adjust the height.

## **Details of the Patent Rights Granted**

S.No	Application No.	Name of the Inventors & Department	Title of the Patent	Type of IPR
1.	385639-001	Dr. S Ramakrishnan, IT, Dr. Ponni Alias Sathya, IT Dr. S.K.Ashok, Auto, Ms. D. Janani, IT, Ms. N. Sumathi, CSE	Household Grinding Machine	Indian Patent Office
2.	380824-001	Dr. J. Thimmia Raja, IT Dr.A.S.MuthunanthaMurugavel , IT	Currency Note Counting Machine	Indian Patent Office
3.	380828-001	Dr.M.Kaliamoorthy, Prof.,EEE	Dual Switch Coupled Inductor Converter	Indian Patent Office
4.	382119-001	Dr Kishore B, AP(SG), EEE	Agriculture Robot For Sowing Seeds	Indian Patent Office
5.	382619-001	Dr.P.T.Kalaivani, Dr.VishalGangadharPuranik, Dr.A.P.Janani, Dr.M.k.JayanthiKannan, Dept of IT	Smart Phone Charger	Indian Patent Office
6.	348928-001	Dr.Kishore B,EEE	A supporter for portable terminal	Indian Patent Office
7.	202141016329	Dr.M.Selvakumar, Dr.M.Thirunavukkarasu, Mr.R.Vishnu Ramesh Kumar, Dept. of Auto, Dr.B.Kishore, EEE	Self-charging bi-cycle with solar panel	Indian Patent Office
8.	2020102000	Dr.C.Kalamani/ECE	Low radiation wearable Micro strip antennas for embedded skin patch Applications	Australian Patent office
9.	201941 <mark>0</mark> 19354 A	Dr.M.Selvakumar/Auto	Titanium-titanium boride composite as a bio material for hip, knee implants	Indian Patent Office
10.	2020103913	Dr.Karthick Jayaram/Auto	Method of synthesizing hybrid composite metal with natural Ceramic and joining thereof	Australian Patent office

## **DETAILS OF THE PATENTS PUBLISHED - JUNE - AUG (2023-24)**

S.No.	ApplicationNo.	Name of the Inventors &Department	Title of the Patent, Type of IPR, Month &Year of Publication
1.	394424-001	Dr.M.Jayaraj, Dr.N.ShanmugaSundaram, Mr.K.Vijayakkannan, Mr. S. V.Gurupranes, Mr. S. Gnanakumar, Dr.RamaThirumurugan Department of Mechanical Engineering	Coconut Deshelling Machine, IPO, Chennai, Sep 2023
2.	202341055636	Dr.V.Lakshminarayanan /EIE, Mr. P. Kathirvel /EIE, Dr.N.ShanmugaSundaram, / Mech, Mr.K.Vijayakkannan/ Mech, Dr.M.Jayaraj/ Mech	Automated Waste Bin Management Through IOT And AI For Efficient Waste Collection, IPO, Chennai, Aug 2023
3.	202341039226 A	Dr.V.Lakshmi Narayanan /ECE Dr.K.Rameshkumar /ECE P. Kathirvel/EIE	Artificial Intelligence in Medical Decision Support System, Indian Patent Office, July 2023
4.	202341044356	Dr.K.Umamaheswari, /EEE	A system and method for battery management and green energy storage, Indian Patent Office, July 2023
5.	202311046496	Dr.P.Vivekanandan, Prof/AI & ML	Method for Improving machine learning model performance with generative adversarial networks, Indian Patent Office, July 2023
6.	202341046834	Dr.P.Vivekanandan, Prof/AI & ML Ms.M.BagavathiPriya ,AP/AI & ML Ms.V.Shanmugaveni, AP/CysMr.M.Sakthivadivel, AP/Cys	Programmable Smart Kitchen Container, Indian Patent Office, July 2023
7.	202341042928	Dr. M.Selvakumar, Dr. M.Thirunavukkarasu, Department of Automobile Engineering	An Arrangement for Detecting Surface defects of Engine Pison During Production Casting and Method Thereof, Indian Patent Office, June 2023

## **DETAILS OF THE PATENTS FILED – JUNE –AUG (2023-24)**

S.No.	Patent Title	Name of the Faculty	Department & Date of filing
1.	A system and method for battery management and green energy storage	Dr.K.Umamaheswari	Electrical and Electronics Engineering 02.07.2023
2.	Method for Improving machine learning model performance with generative adversarial networks	Dr.P.Vivekanandan	Artificial Intelligence & Machine Learning 11.07.2023
3.	Programmable Smart Kitchen Container	Dr.P.Vivekananda n, Ms.M.BagavathiPriya, Ms.V.Shanmugaveni& Mr.M.Sakthivadivel	Artificial Intelligence & Machine Learning and Cyber Security 12.07.2023

#### **CONSULTANCY ACTIVITIES**

S. No	Name of the Faculty/Consultants	Department	Name of consultancy Project/Corporate Training Program	Consulting/ Sponsoring Agency	Year	Revenue Generated INR
1	Dr. L.Chitra, Mr. M. Saravanakumar	Electrical and Electronics Engineering	Being the charges for energy audit conducted at Club Mahindra Kanha, Mandla from 4.4.23- 5.4.23.	Mahindra Holidays & Resorts India Limited	2023-2024	30000
2	Dr.M.Selvakumar	Automobile Engineering	Being the charges for testing of Boat Earphones/Neck Band).	VVDN Technologies Pvt. Ltd.	2023-2024	16800
3	Mr. A. Manikandan, Mr. P.S. Sathish Kumar	Civil Engineering	Being the testing charges received for land survey.	Mrs.G.Indumathi, 612, Rathinasabapathipuram, Mahalingapuram, Pollachi	2023-2024	8600
4	Mr. S. Syed Masoodhu	Civil Engineering	Being the testing charges for Soil sample testing.	Suryabala Earth Movers	2023-2024	7500
5	Mr. A. Manikandan	Civil Engineering	Being the charges for testing of tensile strength test of steel samples.	Baya Constructions	2023-2024	6000
6	Mr. S. Syed Masoodhu, Dr. K. Srinivasan	Civil Engineering	Being the testing charges of soil test	The Commissioner, Palladam Municipality	2023-2024	5000
7	Mr. A. Manikandan	Civil Engineering	Being the testing charges for testing of Compression strength test of 12 Concrete cubes.	Baya Constructions	2023-2024	4800
8	Mr. A. Manikandan	Civil Engineering	Being the testing charges for testing of Compression strength test of 12 Concrete cubes.	Baya Constructions	2023-2024	4800

#### **CONSULTANCY ACTIVITIES**

S. No	Name of the Faculty/Consultants	Department	Name of consultancy Project/ Corporate Training Program	Consulting/ Sponsoring Agency	Year	Revenue Generated INR
9	Mr. S. Syed Masoodhu	Civil Engineering	Being the testing charges received for soil sample tesing	S.Mrudula, Easa College of Engineering and Technology, Coimb atore	2023-2024	4000
10	Mr. A. Manikandan	Civil Engineering	Being the testing charges for testing of compression strength test of concrete cubes 3 sets.	Baya Constructions	2023-2024	3600
11	Mr. A. Manikandan	Civil Engineering	Being the testing charges for compression strength test of concrete cubes 2 sets.	Baya Constructions	2023-2024	2400
12	Mr. A. Manikandan	Civil Engineering	Being the testing charges for testing of compressive strength of concrete cubes 2 sets.	Baya Constructions	2023-2024	2400
13	Mr. A. Manikandan	Civil Engineering	Being the testing charges for compression strength test of concrete cubes.	Baya Constructions	2023-2024	2400
14	Mr. P.S. Sathish Kumar, Mr. S. Sudharsanan	Civil Engineering	Being the testing charges for quality inspection	The Commissioner, Pollachi Municipality	2023-2024	2000
15	Mr. M. Saravanakumar	Mechanical Engineering	Being the charges for Training on NX 1980 CAD from 02.05.23-11.05.23.	Larsen & Toubro Limited - Defence	2023-2024	10000

#### RESEARCH PUBLICATION

#### Journal Article Publications (JUNE - AUGUST 2023-2024)

- 1. Narayanasamy, P, B. K. Parrthipan, T. Ramkumar, and N. Sivashanmugam. "Experimental studies on automated DC pulsed MIG welding of Monel 400 sheets." Materials and Manufacturing Processes (2023): 1-11,https://doi.org/10.1080/10426914.2023.2238076 IF:4.783, Indexing: Q1.
- 2. Janakiraman, Bhavithra, Sathiyapriya Shanmugam, Rocío Pérez de Prado, and Marcin Wozniak. "3D road lane classification with improved texture patterns and optimized deep classifier." Sensors 23, no. 11 (2023): 5358.DOI: 10.3390/s23115358,IF:3.847, Indexing: Q1
- 3. Reghunath, B. Shalini, Sunaja Devi KR, Sruthi Rajasekaran, B. Saravanakumar, J. Johnson William, and Dephan Pinheiro. "Hierarchical BiFeO3/Cr2CTx MXene composite as a multifunctional catalyst for hydrogen evolution reaction and as an electrode material for energy storage devices." ElectrochimicaActa (2023): 142685.https://doi.org/10.1016/j.electacta.2023.142685, IF:6.6, Indexing:Q1
- 4. Vasudevan, Mangottiri, Narayanan Natarajan, Easwaran Senthil Kumar, Selvaraj Tamizharasu, Shafiqur Rehman, Luai M. Alhems, and Md Mahbub Alam. "Environmental and Socio-Economic Aspects of Public Acceptance of Wind Farms in Tamil Nadu, India—Key Observations and a Conceptual Framework for Social Inclusion." Polish Journal of Environmental Studies 32, no. 4 (2023): 3339 3353.DOI:10.15244/pjoes/163161, IF: 1.871 Indexing:SCIE.

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#### Journal Article Publications (JUNE - AUGUST 2023-2024)

- 5. Chandran, Praveenkumar, Kaliamoorthy Mylsamy, and Prabha S. Umapathy. "Hybrid Optimization Approach for Improved Efficiency in Permanent Magnet Brushless DC Motor Design: Combining Cauchy Particle Swarm & Moth Flame Methods." Electric Power Components and Systems (2023): 1-12.https://doi.org/10.1080/15325008.2023.2202667 IF: 1.276 Indexing: SCIE.
- 6. Balasubramanian, Kishore, K. Gayathri Devi, and K. Ramya. "Classification of white blood cells based on modified U=Net and SVM." Concurrency and Computation: Practice and Experience: e7862.https://doi.org/10.1002/cpe.7862 IF: 1.831 Indexing: SCIE.
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- 9. Bharathi, S "Enhanced security with multilevel authentication for accessing biometric database" European Chemical Bulletin Special issue on carbon nano tubes, Bridging material science, chemistry, computer and Engineering, Vol.12, pp:5434 5447 (2023). DOI: 10.31838/ecb/2023.12.si6.468 IF: 3.71 Indexing: Scopus.
- 10. Bharathi, S., M. Senthilarasi, and K. Hari. "Key Frame Extraction Based on Real-Time Person Availability Using YOLO", Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (JoWUA), IF: 5.31, Indexing: Scopus.
- 11. Ramprasath, J., L. Meenachi, AS Muthanantha Murugavel, G. Karthikeyan, and Shebin Sharief. "Influence of Meme Based Promotion to Increase Purchase Behaviour of Youths." (2023).DOI:10.17605/OSF.IO/HRDKX IF: 0.102, Indexing: Scopus.
- 12. A.S.Muthanantha Murugavel, L.Meenachi, V.Yamunadevi, S.Alagu Nandhitha, C.Pranav Kumar "Air Quality Monitoring System based on MachineLearning" European Chemical Bulletin (2023), DOI: 10.48047/ecb/2023.12.8.449, IF:0.102, Indexing: Scopus.
- 13. A. S. Muthanantha Murugavel, "Demand Forecasting for Unmanned Retail Marts Using MachineLearning" European Chemical Bulletin (2023). DOI: 10.48047/ecb/2023.12.si12.008, IF: 0.102, Indexing: Scopus.
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- 15. K.Kalaiselvi, N.Mohanapriya, V.Aparna, D.Dafik "On r-dynamic coloring of subdivision-vertex neighborhood corona of path with certain graphs" AIP Conference proceedings (2023). https://doi.org/10.1063/5.0137003, IF: 0.41, Indexing: Scopus.
- 16. Muthusami, Rathinasamy, and Kandhasamy Saritha. "Exploratory analysis of SARS-CoV-2 omicron variant and its subvariant propagation: global predominance of BA. 1\*, BA. 2\*, BA. 5\*, BE. 1\*, and BQ. 1." Proceedings of the Indian National Science Academy (2023): 1-9.doi: 10.1007/s43538-023-00176-8, IF: 0.175, Indexing: Scopus.

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- 19. Mariyappan, M., P. Suthanthirakumar, J. Johnson William, P. Karthikeyan, R. Vijayakumar, and K. Marimuthu. "Structural and optical investigations on Er3+ ions doped alkali bismuthborate glasses." In AIP Conference Proceedings, vol. 2770, no. 1. AIP Publishing, 2023. https://doi.org/10.1063/5.0140984 IF: 0.41, Indexing: Scopus.
- 20. P. A. Periyasamy, Gohulavani, G. Vadivelan and M. Sekar "Sorption studies of sago waste activated carbon on a cid violet 7 dye" High Technology Letters, Volume 29, Issue 2 (2023). https://doi.org/10.37896/HTL29.02/8171 IF: 0.131, Indexing: Scopus.
- 21. Rajasekaran, Sruthi, Sunaja Devi KR, B. Shalini Reghunath, B. Saravanakumar, J. Johnson William, and Dephan Pinheiro. "Sm-MOF/rGO/PANI composite as an electrode material for supercapacitor applications." ElectrochimicaActa 467 (2023): 143031. https://doi.org/10.1016/j.electacta.2023.143031, IF: 7.336, Indexing: Q1.
- 22. Vaduganathan, Lakshminarayanan, Shubhangi Neware, Przemysław Falkowski-Gilski, and Parameshachari Bidare Divakarachari. "Spectrum Sensing Based on Hybrid Spectrum Handoff in Cognitive Radio Networks." Entropy 25, no. 9 (2023): 1285. https://doi.org/10.3390/e25091285, IF:2.738, Indexing: Q1.
- 23. Mahalingam, Jayaraj, Rama Thirumurugan, Shanmugam Dharmalingam, S. Sam Roy, S. Phuvi, and R. Aswathaman. "Effect of alkali treatment on properties of Palmyra palm tree primary flower leaf stalk fiber—reinforced polymer composites." Biomass Conversion and Biorefinery (2023): 1-12. https://doi.org/10.1007/s13399-023-04749-x IF: 4.05, Indexing: SCIE.
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- 28. S.K.Ashok, M.Mahendran, R.Vishnurameshkumar "Design of an Inbuilt Vehicle Weight Measuring System", ANVESAK, Vol. 53, No.1(IV). (2023).
- 29. B Kannapiran "Artificial Neural Network and Principal Component Analysis Models for Detection of COVID 19 Symptoms Using ECG data" The International journal of analytical and experimental modal analysis, Volume XV, Issue V, Page No: 180 to 188. (2023).
- 30. S.Thilagavathi, T.Sathiyapriya, V.Gurunathan, A.Shafeek, R.Sudhakar, "Design of Low-Profile Energy-Efficient Wideband Antenna With Enhanced Bandwidth For Wireless Applications", The International journal of analytical and experimental modal analysis, Volume XV, Issue V, Page No: 298-304 (2023).
- 31. Ms.V.Karpagam, "IOT-Based Solar Powered Fertigation Cumpanchagavya (Natural Manure) Dispenser", International Journal of Creative Research Thoughts, Volume 11 Issue 7 Page no: 933-939 (2023).
- 32. S.K.Ashok, D.Shanmugam, S.Ponni Alias Sathya, M.Mahendran, "Design And Analysis Of Friction Stir Welding Tool Using Ansys", Industrial Engineering Journal (2023).
- 33. S.K.Ashok, M.Mahendran, Vishnurameshkumar, S.Ponni Alias Sathya, "Design of an Inbuilt Vehicle Weight Measuring System" ANVESAK (2023).
- 34. Lakshminarayanan V "IOT based Sewage Water Management using Solar", INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN TECHNOLOGY, Volume 10 Issue 1,pp539-542, (2023).

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- 1. R.Binisha, 'A Novel investigation for a predictor of Intellect tumor and Categorization by CNN based on Resu-Net Architecture', International Conference on Communication, Computing and Electronics Systems (ICCCES-2023), PPG Institute of Technology, Coimbatore, 01.06.2023.
- 2. A.Suganya, 'IoT based Mobile Application for Supervision Surveillance', International Journal of Advanced Engineering Science and Information Technology (IJAESIT), Karpagam Institute of Technology, 03.06.2022 & 04.06.2022, 01.06.2023.
- 3. D.Gnanaprakasam, 'Efficient Task Scheduling in Cloud Environment Based on Hyper Min Max Task Scheduling', ICISDG'23: International Conference on Innovation Towards Sustainable Development Goals, Project contest innovations, Salem, June, 2023, Indexing: Scopus.
- 4. G.Karthikeyan, 'Acquaintance of Air Quality Measuring and Monitoring System in Driver's Cabin', 2023 2nd International Conference on Vision Towards Emerging Trends in Communication and Networking Technologies (ViTECoN), ViT, Vellore, 26.06.2023, Indexing: Scopus.
- 5. G.Karthikeyan, "Design and Implementation of Automated Tank Cleaning Robot", 2023 2nd International Conference on Vision towards Emerging Trends in Communication and Networking Technologies (ViTECoN), VIT, Vellore, 26.06.2023, Indexing: Scopus.
- 6. Ms.V.Karpagam, "IoT Smart Streetlight System for Semi-UrbanAreas with Fault Detection", IEEE 2nd International Conference on Vision Towards Emerging Trends in Communication and Networking Technologies ViTECoN-Hybrid Conference (In-person and Virtual)-2023, VIT, Vellore, 6.26.2023, Indexing: Scopus.

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- 8. K S Sudhishna, C Sanjay Kumar, B S Kishore, A Arun, "Comparative Analysis of different machine learning algorithms to predict depression", International Conference on sustainable computing and smart systems (ICSCSS 2023), Hindusthan College of Engineering and Technology, June-23, Indexing: Scopus.
- 9. K.Saranya, K. Saranya, K. Varunvikash, K. Karthikeyan, S. Rosanakthar, "Detecting Malicious Urls using Data Analytics", International Conference on sustainable computing and smart systems (ICSCSS 2023), Hindusthan College of Engineering and Technology, June-23, Indexing: Scopus.
- 10. P.Kalaivani, "Fake Review Detection using Naive Bayesian Classifier", International Conference on sustainable computing and smart systems (ICSCSS 2023), Hindusthan College of Engineering and Technology, June-23, Indexing: Scopus.
- 11. S. Parveen, B. Saravanakumar, "A Novel Nickel (II) Schiff Base Complex: Theoritical, Fabrication, Thermal and Electrochemical Performance", Internatioal Conference on Energy Conversion and Storage 2023, Amrita University, Coimbatore, 21.06.2023-23.06.2023, Indexing: Scopus.
- 12. S.Ramakrishnan, "A Cross-Domain Recommendation System for Medical Diagnosis", International Conference on research and innovation in Biomedical Engineering (RIBE 2023), Rajalakshmi Engineering College, JULY 2023.

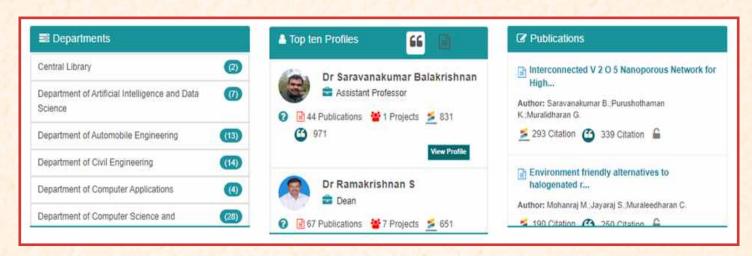
#### **BOOK & BOOK CHAPTER PUBLICATIONS**

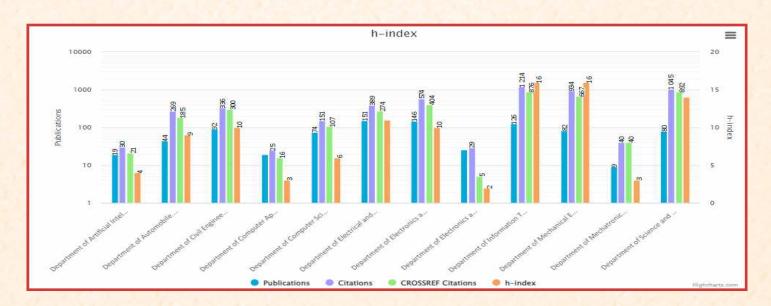
#### **Book Chapters Published (JUNE- AUGUST 2023-2024)**

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- 2. G.Karthikeyan, "Cylindrical Dielectric Resonator Antenna with a Key-Shaped Microstrip Line for 2.4 GHz Wireless Applications", in the book titled "Futuristic Communication and Network Technologies", edited by N.Subhashini, Morris.A.G.Ezra. Shien-KueiLiaw, ISBN: 978-981-19-9747-1, 23/06/2023, Indexing: Scopus.
- 3. K. Renuka Devi, "Dynamics of Swarm Intelligence Health Analysis for the Next Generation", in the book titled "Healthcare Data Analytics Using Swarm Intelligence Techniques", edited by Arumugam Suresh Kumar, UtkuKose, Suleyman, Sachin Sharma, S. Jerald Nirmal Kumar, Sharda University, India, ISBN:9781668468944, July 2023.

#### **CITATIONS**







#### **CITATIONS**

#### Google Scholar



## Dr. Mahalingam College of Engineering and Technology, Pollachi

Dr. Mahalingam College of Engineering and Technology Verified email at drmcet.ac.in - <u>Homepage</u>

Engineering

TITLE	CITED BY	YEAR
Interconnected V2O5 nanoporous network for high-performance supercapacitors B Saravanakumar	434	2012
Static and dynamic mechanical properties of alkali treated unidirectional continuous Palmyra Palm Leaf Stalik Fiber/jute fiber reinforced hybrid polyester composites D Shanmugam, M Thiruchitrambalam Materials & Design 50, 533-542	327	2013
Fine cutting edge shaped Bi2O3rods/reduced graphene oxide (RGO) composite for supercapacitor and visible-light photocatalytic applications D Maruthamani, S Vadivel, M Kumaravel, B Saravanakumar, B Paul,	205	2017
Speech emotion recognition approaches in human computer interaction S Ramakrishnan, IMM EI Emary Telecommunication Systems 52, 1467-1478	193	2013



Speech emotion recognition approaches in human computer interaction  S Ramakrishnan, IMM El Emary Telecommunication Systems 52, 1467-1478	193	2013	Co-authors	VIEWALL
Characterization of untreated and alkali treated new cellulosic fiber from an Areca palm leaf stalk as potential reinforcement in polymer composites N Shammugasundaram, I Rajendran, T Ramkumar Carbohydrate Polymers 195, 566-575	189	2018	Dr.S.Ramakrishnan Dean-Research & In	
Influence of alkali treatment and fibre length on mechanical properties of short Agave fibre reinforced epoxy composites K Mylsamy, I Rajendran Materials & Design 32 (8-9), 4629-4640	164	2011	Dr. T. RamKumar Dr.Mahalingam Colle Dr.R.Sudhakar Professor of Electron	
The mechanical properties, deformation and thermomechanical properties of alkali treated and untreated Agave continuous fibre reinforced epoxy composites K Mylsamy, I Rajendran Materials & Design 32 (5), 3076-3084	156	2011	DR M L VALARMATE Professor, Dr.MCET,  Senthikumar A Professor/EEE Dr Ma	Pollachi
influence of shallow and deep cryogenic treatment on the residual state of stress of 4140 steel  Do Senthilkumar, I Rajendran, M Pellizzari, J Siiriainen Journal of Materials Processing Technology 211 (3), 396-401	155	2011	Dr.I.Rajendran Dean, Paavai Engine Drahiem El Emary Professor of computs	
A review on deep learning in medical image analysis S Suganyadevi, V Seethalaishmi, K Balasamy International Journal of Multimedia Information Retrieval 11 (1), 19-38	139	2022	Kishore Balasubrama Dr Mahalingam Colle	
Nanostructured CuO/reduced graphene oxide composite for hybrid supercapacitors KX Purushothaman, B Saravanakumar, IM Babu, B Sethuraman, RSC advances 4 (45) 23455-23491	133	2014	Kaliamoorthy Mylsan Associate Professor	n EEE,Dr >



#### World Scientist and **University Rankings 2024**

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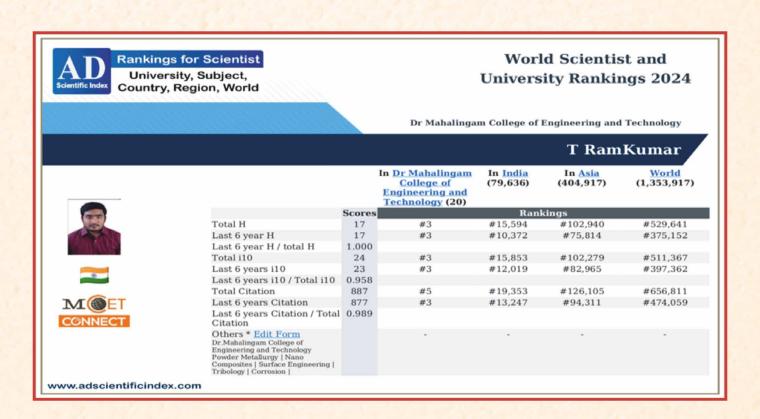
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		In Dr Mahalingam College of Engineering and Technology (20)	In <u>India</u> (79,636)	In <u>Asia</u> (404,917)	World (1,353,917)
	Scores		Rank	ings	
Total H	26	#1 🔘	#6,269	#48,095	#279,982
Last 6 year H	22	#1 🔘	#5,103	#43,285	#225,508
Last 6 year H / total H	0.846				
Total i10	54	#1 🔘	#6,038	#42,395	#230,177
Last 6 years i10	43	#1 🔾	#5,206	#39,588	#198,605
Last 6 years i10 / Total i10	0.796				
Total Citation	2,465	#1 🔾	#7,196	#55,179	#332,919
Last 6 years Citation	1,630	#1 🔾	#6,377	#52,400	#280,742
Last 6 years Citation / Total Citation	0.661				
Others * Edit Form Professor & Head of Information Technology, Dr. Mahalingam College of Engineering and Technology Texture Classification   Image Watermarking   Image Encryption   Wavelets   SVD					

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#### **CITATIONS**





#### Ph.D. SUPERVISORS & SCHOLARS

S.No.	Name of the Department	No. of Supervisors	No. of Scholars Completed Ph.D.	No. of Scholars Ongoing Ph.D.
1.	Department of Information Technology	6	10	12
2.	Department of Computer Science and Engineering	3	8	11
3.	Department of Electrical and Electronics Engineering	8	19	14
4.	Department of Electronics and Communication Engineering	5	7	16
5.	Department of Mechanical Engineering	7	7	8
6.	Department of Automobile Engineering	4	4	5
7.	Department of Civil Engineering	3	3	12
8.	Department of Artificial Intelligence and Data Science	2	Z11257	3
9.	Department of Artificial Intelligence and Machine Learning	2		6
10.	Master of Computer Applications	1	3	21.75%-1.25
11.	Department of Science and Humanities	5	12	10
12.	Department of Mechatronics		1	2
13.	Department of Electronics and Instrumentation Engineering		2	3
	Total No. of Supervisors	46	76	102

44 Candidates have applied for Ph.D. - Anna University for January 2024 session

#### **APPROVED RESEARCH CENTRE DETAILS**

**Department of Information Technology** 

**Department of Computer Science and Engineering** 

**Department of Automobile Engineering** 

**Department of Civil Engineering** 

**Department of Mechanical Engineering** 

Department of Electronics and Communication Engineering

**Department of Electrical and Electronics Engineering** 

## Ph.D. Supervisor Details Department of Information Technology

	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID
1.	Dr. S.Ramakrishnan, Professor/IT, Dean R&I, MCET.	2140262	Image Processing, Information Security & Bio medical Signal Processing	Completed: 9	Ongoing: 5	deanri@drmcet.ac.in
2.	Dr.A.S.Muthanantha Murugavel Associate Professor, IT, MCET.	3140065	Machine Learning, Pattern Recognition, Biomedical Signal Processing & Web Technologies	Completed: -	Ongoing: -	hod_it@drmcet.ac.in
3.	Dr. A.B.Arockia Christopher Associate Professor, IT, MCET.	2940013	Data Mining & Feature Selection	Completed: -	Ongoing: -	abchristo@drmcet.ac.in
4.	Dr.S. Ponni @ Sathya, Assistant Professor(SG), IT, MCET.	4040097	Information Security, Computer vision, Image Processing & Watermarking	Completed: -	Ongoing: -	psathya@drmcet.ac.in
5.	Dr.J.Ramprasath, Assistant Professor(SS), IT, MCET.	4140071	Computer Networks	Completed: -	Ongoing: 2	jrprasath@drmcet.ac.in
6.	Dr.L.Meenachi, Assistant Professor (SG), IT, MCET.	4140162	Data Mining, Soft Computing, Machine Learning, Pattern Recognition	Completed: -	Ongoing: -	lmeenachi@drmcet.ac.in

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

S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID
7.	Dr.G.Anupriya, Professor & Head, CSE.	2740037	Natural Language Processing, Machine Learning, Artificial Intelligence	Completed: -	Ongoing: -	hod_cse@drmcet.ac.in
8.	Dr.M.LValarmathi, Professor, CSE.	2240411	Image Processing, Data Mining, Machine Learning, Optimization Techniques	Completed: 4	Ongoing: 4	drmlv@drmcet.ac.in
9.	Dr.M.Pandi, Associate Professor, CSE.	3340032	Data Mining, Heuristic Optimization, Computer Networks, Bioinformatics	Completed: 1	Ongoing: 2	pandim@drmcet.ac.in

## **Department of Electrical and Electronics Engineering**

S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID
10.	Dr.A.Senthilkumar Dean (A & A), Professor, EEE, MCET.	2540080	VLSI, Mems and Smart Structures, Signal Processing, Power Electronics	Completed: 9	Ongoing: -	deanaa@drmcet.ac.in
11.	Dr M Kaliamoorthy, Professor & Head, EEE.	2630020	Power Electronics, Renewable Energy Sources, Electrical Drives, Power Systems	Completed: 1	Ongoing: 3	hod_eee@drmcet.ac.in
12.	Dr B Vinoth Kumar Associate Professor, EEE.	2640059	Image Processing, Soft Computing, Medical Imaging	Completed: 1	Ongoing: 3	vinothkumarb@drmcet.ac.in
13.	Dr L Chitra Associate Professor, EEE.	3330006	Boost Converter, Renewable Energy, Energy Efficiency	Completed: -	Ongoing: 2	chitral@drmcet.ac.in
14.	Dr K.Umamaheswari Associate Professor(SG), EEE.	2930014	Renewable Energy, Hybrid Systems, Optimization, Power Systems	Completed: -	Ongoing: -	umamaheswari@drmcet.ac.in
15.	Dr K Rameshkumar Assistant Professor, EEE.	3930027	Power Electronics, Soft computing Techniques, Power Quality, Renewable Energy Sources	Completed: -	Ongoing: -	rameshkumar@drmcet.ac.in
16.	Dr B.Kishore Assistant Professor(SG), EEE.	4040087	Medical Image Processing, Biomedical Engineering, Soft Computing, Neural	Completed: -	Ongoing: -	bkishore@drmcet.ac.in
17.	Dr.K.Saranya Assistant Professor(SS), EEE.	4190005	VLSI Design, Image Signal Processing	Completed: -	Ongoing: -	saranya@drmcet.ac.in

## **Department of Electronics and Communication Engineering**

S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID	
18.	Dr.R.Sudhakar Professor and Head, ECE.	2340376	Signal Processing, Image Processing	Completed: 4	Ongoing: 6	hod_ece@drmcet.ac.in	
19.	Dr.Sudha V K Professor, ECE.	2540058	Image Processing, Data Compression and Signal Processing	Completed: -	Ongoing: 3	sudhashree@drmcet.ac.in	
20.	Dr. B.Kannapiran Professor,ECE.	3540003	Fault Diagnosis, Intrusion Detection System and Soft Computing	Completed: -	Ongoing: 2	kannapiran@drmcet.ac.in	
21.	Dr.N.Saravana Kumar Assoociate Professor, ECE.	2740156	VLSI Design, Analog IC Design	Completed: 2	Ongoing: 5	saravanakumarn@drmcet.ac.in	
22.	Dr.S.Bharathi Assistant Professor(SG), ECE.	3440002	Image Processing, Biometrics	Completed: -	Ongoing: -	sbharathi@drmcet.ac.in	

## **Department of Mechanical Engineering**

S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID
23	Dr. Rama Thirumurugan Professor, Mech.	2020359	Machine Design	Completed: 4	Ongoing: 2	rtm@drmcet.ac.in
24	Dr. S. Ayyappan Associate Professor, Mech.	3320052	Thermal Engineering	Completed: -	Ongoing: 2	sayyappan@drmcet.ac.in
25	Dr. T. Ramkumar Assistant Professor(SG), Mech.	3420007	Powder Metallurgy	Completed: -	Ongoing: 3	ramkumar@drmcet.ac.in
26	Dr. K. Hariharan Assistant Professor(SG), Mech.	3620008	Additive Manufacturing	Completed: -	Ongoing: -	hariharan.k@mcet.in
27	Dr. ShanmugaSundaram. N Assistant Professor(SG), Mech.	4120007	Composite Materials	Completed: -	Ongoing: -	shanmugacadcam@drmcet.ac.in
28	Dr. M.Jayaraj Assistant Professor (SS), Mech.	4020050	Composite Materials, Finite Element Analysis	Completed: -	Ongoing: -	jayarajm@drmcet.ac.in
29	Dr.R.Gnanaguru Assistant Professor (SS), Mech.	2720076	Lean Manufacturing, 5S, 6S, Kaizen, Tqm, Tpm	Completed: -	Ongoing: -	drguru@drmcet.ac.in

## **Department of Automobile Engineering**

S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID	
30.	Dr. P.Govindasamy Principal & Professor, MCET.	2320111	Thermal Engineering, Material Science, Design	Completed: 2	Ongoing: -	principal@drmcet.ac.in	
31.	Dr.D.Shanmugam Professor, Auto.	2520049	Composite Materials, Material Science	Completed: -	Ongoing:-	dshanmugam@drmcet.ac.in	
32.	Dr.M.Selvakumar Associate Professor, Auto.	2620049	Composites, Production, Design, Automobile	Completed: -	Ongoing: -	sel_mcet@drmcet.ac.in	
33.	DrS.K.Ashok Assistant Professor(SG), Auto	4220041	Manufacturing Processes, Material Science, Friction Stir Welding, Material Characterization	Completed: -	Ongoing: -	ashok@mcet.in	

## **Department of Civil Engineering**

S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID
34	Dr. K. Murali, Professor and Head, Civil.	2810005	Environmental Engineering, Water Recourses Engineering, Green Buildings, Energy Conversion	Completed: -	Ongoing: 5	muralik@drmcet.ac.in
35	Dr. N. Natarajan Associate Professor, Civil.	2810022	Groundwater Quality, Contaminant Transport Modeling ,Forecasting, Soft Computing	Completed: -	Ongoing:1	natarajan@drmcet.ac.in
36	Dr. M. Mariappan Associate Professor, Civil.	2910019	Structures, Concrete, Construction Management, Civil Engineering	Completed: -	Ongoing: 3	mariappanm@drmcet.ac.in

## **Department of Artificial Intelligence and Data Science**

S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID
37.	Dr.M.Balakrishnan, Associate Professor, AI&DS.	2840056	Data Mining, Cloud Computing	Completed: -	Ongoing: -	balki@drmcet.ac.in
38.	Dr.S.Nithya Assistant Professor (SS), AI&DS.	4140174	Image Processing, Texture Classification, Content Based Image Retrieval, Local Binary Pattern	Completed: -	Ongoing:-	snithya@drmcet.in

## **Department of Artificial Intelligence and Machine Learning**

S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID
39.	Dr.K.N.Vijeyakumar Professor, AI&ML.	2330285	VLSI Design, Digital System Design, Application specific IC design	Completed: 3	Ongoing: 7	vijey.tn@drmcet.ac.in
40.	Dr. P. Vivekanandan Professor, AI&ML.	2140439	Artificial Intelligence, Machine Learning, Data Science	Completed:	Ongoing: 1	drpvivekanandan@drmcet.ac.in

## **Department of Master of Computer Applications**

S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID
41.	Dr. Muthu Sami R, Assistant Professor (SG) & HOD i/c, MCA.	4070034	Data Analytics, Machine Learning	Completed: -	Ongoing: -	hod_ca@drmcet.ac.in

### **Department of Science and Humanities**

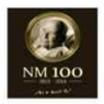
S.No.	Supervisor Details	Supervisor No.	Research Area	No. of completed Scholars	No. of Ongoing Scholars	Email ID
42.	Dr. B.Saravanakumar, Assistant Professor(SS), S&H-Physics.	3070066	Nano Materials, Energy Storage Devices, Metal Oxides	Completed: -	Ongoing: -	saravanakumar123@drmcet.ac.in
43.	Dr. V. Umadevi, Assistant Professor(SS), S&H-Physics.	3170014	Molecular Quantum Mechanics	Completed: -	Ongoing: -	umadevi@drmcet.ac.in
44.	Dr. S. Parveen, Assistant Professor, S&H-Chemistry.	3470036	Nanotechnology, Crystal Growth	Completed: -	Ongoing: -	parveens@drmcet.ac.in
45.	Dr. J.Johnson William, Assistant Professor, S&H-Physics	4170017	Electrochemical energy Storage Devices, Nanostructued Materials, Batter-Type Electrode Materials  Completed: - Ongoing: - johnsonv		johnsonwilliamj@drmcet.ac.in	
46.	Dr. M.Mariyappan, Assistant Professor, S&H-Physics	4170060	Spectroscopy, Luminescence, Rare Earth Doped Glasses	Completed: -	Ongoing: -	mariyappanm@drmcet.ac.in

## Ph.D. Completed Scholar details- JUNE- AUGUST (2023-24)

S.No.	Department & Title of Research work	Scholar Name, Designation and Institution	Reg. No., University & Year of Reg.	Month of Completion
1	S&H - A Study on Bipolar Pythagorean Fuzzy Regular Generalized Closed sets	Dr. K.VISHALAKSHI Assistant Professor Dr.Mahalingam College of Engineering and Technology, Pollachi	10376/B1, 2019 Bharathiar University 2019	JULY 2023

## List of Ph.D. Registered Scholars - JUNE- AUGUST (2023-24)

S.No.	Scholar Name, Designation and Institution	Supervisor Name, Designation and Institution	Reg. No., University& Year of Reg.	Title of the Research work
1	Ms.T.Sumathi Assistant Professor, IT, MCET.	Dr.N.Yuvaraj, Proefssor& Head, CSE, KPR Institute of Engineering and Technology.	Reg. no.: 23244697221 University: Anna University Year of Reg.: 2023	Predicting the stages of chronic liver disease using deep learning technique
2	Mr.N.Praveen Sundra Kumar Assistant Professor, IT, MCET.	Dr.S.Ramakrishnan Professor/IT, Dean R&I, MCET.	Reg. no.: 23144697195 University: Anna University Year of Reg.: 2023	Malware classification using image texture analysis
3	Ms.P.Kalaivani Assistant Professor, IT, MCET.	Dr.S.Ramakrishnan Professor/IT, Dean R&I, MCET.	Reg. no.: 23254697209 University: Anna University Year of Reg.: 2023	Recommendation System for Application Developers
4	Ms.K.S.Sudhishna Assistant Professor, IT, MCET.	Dr.S.Ramakrishnan Professor/IT, Dean R&I, MCET.	Reg. no.: 23294697229 University: Anna University Year of Reg.: 2023	Depression detection using machine learning based text emotion analysis
5	Ms.G.Saranya Assistant Professor, IT, MCET.	Dr.S.Ramakrishnan Professor/IT, Dean R&I, MCET.	Reg. no.: 23234697232 University: Anna University Year of Reg.: 2023	Privacy preserving using federated learning
6	Ms.G.Deepa Assistant Professor, CSE, MCET.	Dr.J.Ramprasath AP(SS), IT, MCET	Reg. no.: 23234697360 University: Anna University Year of Reg.: 2023	Phishing email filtering using machine learning techniques.
7	Ms.R.GeethaRajakumari Assistant Professor, AI&DS, MCET.	Dr.D.KarthikaRenuka Professor Department of IT PSG College of Technology	Reg. no.: 23234697379 University: Anna University Year of Reg.: 2023	Certain Investigations on Multilingual Automatic Speech Recognition using Deep Learning Techniques
8	Ms.P.Vanjipriya Assistant Professor, ECE, MCET.	Dr.K.N.Vijeyakumar Professor, AI&ML and CYS, MCET.	Reg. no.: 23249697153 University: Anna University Year of Reg.: 2023	ASIC design of area efficient filters for digital image processing
9	Ms.S.Dharani Assistant Professor, ECE, MCET.	Dr.K.N.Vijeyakumar Professor, AI&ML and CYS, MCET.	Reg. no.: 23229697497 University: Anna University Year of Reg.: 2023	Design of efficient architectures for tag and reader mutual authentication protocol of RFID systems
10	Ms.K.C.RajaRajeshwari Assistant Professor, ECE, MCET.	Dr.N.Saravana Kumar, ASP, EEE, MCET.	Reg. no.: 23249697154 University: Anna University Year of Reg.: 2023	Certain investigation on design and performance analysis of various wearable antennas for MICS and ISM applications
11	Mr.M.Nithyakumar Assistant Professor, ECE, MCET.	Dr.N.Saravana Kumar, ASP, EEE, MCET.	Reg. no.: 23149697219 University: Anna University Year of Reg.: 2023	Certain investigations on design and analysis of MIMO antennas for millimetre wave communications.
12	Mr.M.Saravanakumar Assistant Professor, EEE, MCET.	Dr.L.Chitra, Associate Professor, FYH, MCET.	Reg. no.: 23143697210 University: Anna University Year of Reg.: 2023	DC-DC convertor for renewable energy applications
13	Mr.M.Prabhu Raj Assistant Professor, EEE, MCET.	Dr.L.Chitra, Associate Professor, FYH, MCET.	Reg. no.: 23143697246 University: Anna University Year of Reg.: 2023	Modeling and Optimization of Power Quality Issues using Active filter for Renewable Energy Based Scenarios
14	Mr.G.Karthikeyan Assistant Professor, EIE, MCET.	Dr.J.Ramprasath AP(SS), IT, MCET	Reg. no.: 23149697140 University: Anna University Year of Reg.: 2023	Certain Investigation on Denial of Service and Distributed Denial of Service attacks in Wireless Networks via Mitigation.





## Dr. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY

Udumalai Road, Pollachi, Coimbatore District 642003





#### An Autonomous Institution

#### Office of Dean Research and Innovation

## Congratulations for getting Ph.D. admission in Anna University July 2023 Session

































## Faculty Awards & Recognitions Participation of Faculty as Resource Person

S.No.	Name of the Faculty with Designation	Topic Delivered in the Event& Venue	Date of Guest Lecture program
1	Dr. M. Mariyappan, AP/S&H	"Recent Trends in the IT Industry & the Way to Success"  Venu e: St. Antony College of Arts and Science for Women, Dindigul	19.07.2023
2	Dr. R. Sudhakar, Prof.& HOD/ ECE	"Image understanding technique — Object Recognition"  Venue: Six Days physical mode Faculty Empowerment programme on CCS338-Computer Vision, Anna Un iversity Regional Campus, Coimbatore	25.08.2023
3	Dr. K. Murali, AP,CIVIL	"Environmental engineering"  Venue: Jai Shriram engineering college, CBE	29.08.2022
4	Ms. K. Rajalakshmi, AP,S&H	"Learn pragmatic ways to learn language"  Venue: Sri Krishna Arts and Science College, Coimbatore	23.08.2023
5	Dr.S.Ramakrishnan, Dean, R&I	"Impacts of Homomorphic Encryption on the Past, Present and Future of Humanity"  Venue: 6th Global Emerging Innovation Summit organized by International Innovation Research Network, Melbourne, Australia & Online	31.08.2023
6		"Image Feature Extraction and Reduction"  Venue: Department of ECE, Anna University Regional campus, Coimbatore	23.08.2023

## **Details of Research Articles Reviewed by the Faculty**

S.No	Department	Name of the Faculty with Designation	Name of the Journal & Publisher
1	Computer Science & Engineering	Dr. J. Bhavithra, AP(SG)	Journal of Intelligent & Fuzzy Systems, IOS
2		Dr. A. Noble Mary Juliet, ASP	IEEE World Conference on Applied Intelligence and Computing
3	Electronics & Communication Engineering	Dr.R.Sudhakar,HOD/ECE	IEEE Access
4		Dr.S.Bharathi, AP	Multimedia Tools and Applications
5		Ms. Sathiyapriya T, AP	IEEE International conference on Applied Intelligence and Sustainable computing (ICAISC)- Sri DharamasthalaManujnatheshwara College of Engineering and Technology,Pollachi
6	Mechanical Engineering	Dr.M.Jayaraj, AP	Biomass Conversion and Biorefinery, Springer
7	Information Technology	Dr.S.Ramakrishnan, Dean- R&I	IEEE Access & IEEE     Expert Systems with Applications & Elsevier     Computer and Information Sciences&     Science Progress

#### **Awards & Recognitions**

- 1. Dr.RMuthusami, HOD, MCA, has been appointed as a University Nominee for the Board of Studies in Computer Applications (UG) Sri GVG College for Women, Udumalpet- July 2023
- 2. Dr.L.Senthil Kumar, AP(SG), S&H, has acted as a Chair Person for Paper Presentation DST-SERB Sponsored International Conference on Blooming Fuzzifier Logic (ICBFL 2023) Chikkanna Arts College, Tirupur AUG 2023
- 3. Dr.S.Ramakrishnan, Dean R&I, has been recognized as a top scientist in AD Scientific Index (Rankings for Scientists) by securing the top 6% in India, 11 % in Asia, and 16 % in the world.
- 4. Dr.S.Ramakrishnan, Dean R&I, has received the certificate of excellence for outstanding presentation at the 6th Global Emerging Innovation Summit 2023 Organized by International Innovative Research Network.





## Photos of Impacts of Homomorphic Encryption on the Past, Present and Future of Humanity held on 31.8.2023



## Photos of Image Feature Extraction and Reduction held on 23.8.2023



Dr. R. Sudhakar, Prof.& HOD/ ECE on 25 AUG 2023



#### STUDENTS' NOTABLE ACHIEVEMENTS







#### STUDENTS' NOTABLE ACHIEVEMENTS – JUNE-AUGUST -2023

- 1. Department of B.E.CSE- Cybersecurity Kavin Kumar S & Sarathy D, have presented paper in Karpagam College of Engineering, Coimbatore and have secured the First Prize MAY 2023
- 2. Department of B.E.CSE- Cybersecurity Kavin Kumar S & Sarathy D, have presented paper in Anna University and have secured the second Prize APRIL 2023.
- 3. Department of B.E. CSE (Al&ML) Navinaa K & Midun Thangavel, have presented paper Online International Seminar Organized by Kingdom of Saudi Arabia Ministry of Education, RijakAlmaa.
- 4. Department of ECE- 2023-2024 -GOKUL T, VASUKI R, SABARI M & UVAN VEERA SANGAR G presented paper in 4th International Conference on Data Intelligence and Cognitive Informatics- ICDICI 2023 (Published in Springer )- "Finger Vein Biometric System based on Convolution Neural Network" on 27.06.2023-28.06.2023.
- 5. Department of Information Technology 2023-24
  - V. DINESH RAJ, NAVEEN KUMAR A P & MADHAVAN R presented paper in International conference on Sustainable computing and smart systems (ICSCSS 2023)- "Fake review detection using Naïve Bayesian classifier" on 14-16 June 2023 in Hindusthan College of Engineering and Technology, Coimbatore. Indexing: Scopus.
  - C Sanjay Kumar, B S Kishore, A Arun, presented paper in International conference on Sustainable computing and smart systems (ICSCSS 2023)-"Comparative Analysis of different machine learning algorithms to predict depression" on 14-16 June 2023 in Hindusthan College of Engineering and Technology, Coimbatore. Indexing: Scopus.
  - K. Varunvikash, K. Karthikeyan, S. Rosanakthar, presented paper in International conference on Sustainable computing and smart systems (ICSCSS 2023)-"Detecting Malicious Urls using Data Analytics" on 14-16 June 2023 in Hindusthan College of Engineering and Technology, Coimbatore. Indexing: Scopus.
- 6. Department of AI&DS VIGNESHWARAN R, SANTHOSH K & MADHANADEVA D participated in one day National Level Workshop on "Deep Driven Data Visualization Using BI Tools" 12 AUG 2023 at Karpagam College of Engineering, Coimbatore.









#### STUDENTS' NOTABLE ACHIEVEMENTS









## RESEARCH SEMINAR (Knowledge Sharing Sessions)





Review of Patent Proposal Mr.Ramesh Kannan P, Registered Patent Agent, Lawyer, and Founding Partner

Mr. Venkatesh Viswanath, Registered Patent Agent, Registered Trade Marks Agent, and Founding Partner, QUADRIGA, The Intellectual Property Experts, Chennai, 22.08.2023 & 22 Teams





Navigating Research Opportunities for Success Dr. R. Santhanam, Senior Scientist 'F', Defence R&D Organisation (DRDO), Hyderabad, Ministry of India, Government of India 22.08.2023 & 30 members



Work Process of Patent
Mr.D.Saravanan,
Chairman,3M-IPR Associates, Chennai
25.07.2023 & 33 Teams

# RESEARCH SEMINAR (Knowledge Sharing Sessions)





Role of Innovation in Building the Nation & Introduction to Patenting System in India

Mr.V.Palaniswamy, Deputy Controller of Patents & Designs, Government of India, Chennai,

24.07.2023 & 55 Members













Design IPR and Copyrights: Trends and Innovations

Mr. Sarkar, Joint Controller, Patent Office,

Kolkata.

## RESEARCH SEMINAR (Knowledge Sharing Sessions)

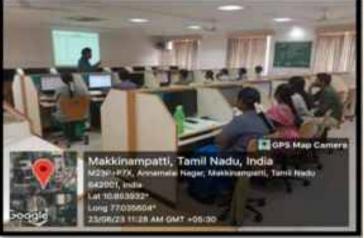




Securing Research Funding: An Essential Skill for University Professors

Dr. R. Gowtham, Head, Research - Amrita School of Computing, Coimbatore, 04.07.2023 &53 members





Basics of MATLAB - Hands-on Training - Dr.R.Sudhakar, Prof & Head / ECE 16.06.2023 & 9 members





Jargons in Research Dr. T. Ramkumar, AP(SG)/Mech., MCET 16.06.2023 & 37 members

# RESEARCH SEMINAR (Knowledge Sharing Sessions)





KAPILA (2023 - 24) Scheme Orientation Meeting - Online Session

Dr. K. Elangovan, Assistant Innovation Director, MoE's Innovation Cell, India 13.06.2023 & 23 Members





**MATLAB-Signal and Image Processing Toolbox** 

Dr. R. Sudhakar, HoD/ECE, MCET. 10.06.2023 & 21 Members

# R&I Review Meetings First Department R&I Review Meeting – JULY 2023 Meeting Schedule:

S.No.	Date	Department	Time	R&I Coordinator	No. of Faculty Attended
1.	21-07-2023 (FN)	Mechanical & Mechatronics	9:30 am - 11:00 am Ms.A.G.Priyavarshini		15
2.		Civil	11:30 am - 1:00 pm	Ms.N.Sumathi	10
3.	22.07.2022 (FN)	CSE 9:30 am - 11:00 am Mr.V.Gurunathan		22	
4.	22-07-2023 (FN)	AIDS	11:30 am - 1:00 pm	Dr.A.Shanmugapriya	13
5.	22.07.2022 (430)	IT	2:00 pm - 3:30 pm	Dr.M.Jayaraj	26
6.	22-07-2023 (AN)	Automobile	3:30 pm - 5:00 pm	Dr.S.Saravanakumar	11
7.	27-07-2023 (AN)	S&H	2:00 pm - 3:30 pm	Dr.J.Thimmia Raja	27
		MCA	3:30 pm - 5:00 pm	Ms.G.Keerthika	05
8.	20.07.2022 (FN)	EEE & EIE	9:30 am - 11:00 am	Dr.M.Jayaraj	22
9.	28-07-2023 (FN)	ECE	11:30 am - 1:00 pm	Mr.S.Syed Masoodhu,	22
10.	28-07-2023 (AN)	AIML & CYS	2:00 pm - 3:30 pm	Dr.K.Rameshkumar	08

#### Glimpses of Department R&I Review Meeting – JULY 2023









#### **Institute - level R&I Coordinators' Meeting-1**

Date: 28 JULY 2023 Venue: OBE Conference Hall (B-110) Duration: 3.30 p.m.- 4.30 p.m.





#### Institute - level R&I Coordinators' Meeting - 2

Date: 1 AUG 2023 Venue: A 117 - Conference Hall Duration: 4.00 p.m.-4.30 p.m.





# HALF YEARLY Ph.D. PROGRESS REVIEW MEETING Half Yearly Progress Presentation Schedule of MCET ongoing Ph.D. Scholars

S.No.	Department	Count	Date
1	Automobile Engineering	6	10.8.23
2	Civil Engineering	4	11.8.23
3	Mechanical Engineering & Mechatronics	6	10.8.23
4	Computer Science and Engineering	8	11.8.23 & 12.8.23
5	Information Technology 5		12.8.23
6	Artificial Intelligence and Data Science	2	11.8.23
7	Artificial Intelligence and Machine Learning & Cyber Security	1	11.8.23
8	Electronics and Instrumentation Engineering	2	12.8.23 & 14.8.23
9	Electronics and Communication Engineering	7	14.8.23
10	Electrical and Electronics Engineering	9	
11	Science and Humanities	6	12.8.23
	Total	56	FARE WARREN

#### Half Yearly Progress Presentation of MCET - ongoing Ph.D. Scholars

Name: XXXX Department: XXXX, MCET

#### Semester-wise progress in PhD research work



Year	Course work	Literature Review and Problem Identification	Impleme ntation	No. of papers (AU List)			
				Submitted	Got revision	Rejected	Published
1st Year	~	~					
3 <sup>rd</sup> sem		~					
4 <sup>th</sup> sem			~				
5 <sup>th</sup> sem			~				
6 <sup>th</sup> sem			~	~	~		
7 <sup>th</sup> sem				0			~
8 <sup>th</sup> sem							
9 <sup>th</sup> sem							
10 <sup>th</sup> sem							
11 <sup>th</sup> sem							
12 <sup>th</sup> sem							

#### NPTEL R&I Related Courses Completed by Faculty - AY 2022-23 (Jan-Apr)

S.No.	Course Name	Duration	No. of Faculty members Completed	
1	Innovation by Design	4 weeks	3	
2	Design, Technology and Innovation	8 weeks	02	
3	Effective Writing	4 weeks	10	
4	Introduction to Research	8 weeks	11	
5	Introduction On Intellectual Property To Engineers And Technologists	8 weeks	01	
6	Roadmap for patent creation	8 weeks	06	
7	Patent Drafting for Beginners	4 weeks	05	
	Total	38		

#### NPTEL R&I Related Courses - Faculty Details AY 2023-24 (July-Dec)

S.No.	Course Name	Duration	No. of Faculty members Appeared
1.	Innovation by Design	4 weeks	2
2.	Design, Technology and Innovation	8 weeks	17
3.	Patent Law for Engineers and Scientists	14 weeks	4
4.	Introduction to Research/Research Methodology	8 weeks	21
5.	Patent Search For Engineers And Lawyers	8 weeks	4
6.	Patent Drafting for Beginners	4 weeks	15
	Total		63

\* Waiting for Results





#### NPTEL R&I Related Courses Completed by Faculty - AY 2022-23 (Jan-Apr)









#### **Initiatives of the Office of Research and 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 work
- 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
- 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



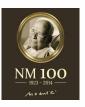
### Dr. MAHALINGAM

COLLEGE OF ENGINEERING AND TECHNOLOGY Udumalai Road, Pollachi, Coimbatore District 642003

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#### **Contact us:**

Office of Dean – Research & Innovation,
Dr. Mahalingam College of Engineering & Technology,
Udumalai Road, Pollachi – 642003, Coimbatore, India.

Mobile: 9442443181, (Extn.397)

Email: deanri@drmcet.ac.in | ramki@drmcet.ac.in

