

**DEPARTMENT OF ELECTRONICS ENGINEERING  
MIT CAMPUS, ANNA UNIVERSITY  
CHROMEPET, CHENNAI - 600 044**

**ANNUAL REPORT FOR THE YEAR 2020-2021 – JULY TO JUNE  
Period from 01.07.2020 to 30.06.2021 (July to June)**

**Name of the Department : Department Of Electronics Engineering, MIT Campus**

- 1) a) Detailed list of Professors, Associate Professors, Assistant Professors and their **Ph.D. specialization** during the period from **01.07.2020 to 30.06.2021**

<b>Sl. No</b>	<b>Name of the Faculty</b>	<b>Designation</b>	<b>E-Mail ID</b>	<b>Field of Ph.D. Specialization</b>
1	Dr.Mala John	Professor	malajohn@annauniv.edu	Communication, Signal & Image Processing
2	Dr. M. Ganesh Madhan	Professor	mganesh@annauniv.edu	Opto Electronic Devices, Optical Communications, RF Systems
3	Dr.M.Kannan	Professor	mkannan@annauniv.edu	Digital VLSI, Computer Architecture, Computer Networks
4	Dr. P. Indumathi	Professor	indu@mitindia.edu	Communications
5	Dr. P. T. V. Bhuvaneswari	Professor	ptvbit@annauniv.edu	wireless networks, WSN, IOT, wireless Communication
6	Dr.S.Indira Gandhi	Professor	indira@mitindia.edu	Communication Networks, VLSI, Video Processing, Optical Communication
7	Dr. M. Manikandan	Associate Professor	maniiz@annauniv.edu	Image Signal Processing ,Cloud computing ,Cyber Security framework
8	Dr. P. Prakash	Associate Professor	prakashp_mit@annauniv.edu	Signal Processing
9	Dr. D. Meganathan	Associate Professor	meganathan_phd@annauniv.edu	Analog IC Design, VLSI Design, Devices and NOC design
10	Dr.S.P.Joy Vasantha Rani	Associate Professor	joy_mit@annauniv.edu	FPGA designs, Digital system designs, Evolvable hardware architectures
11	Dr. G. Kavitha	Associate Professor	kavithag_mit@annauniv.edu	BIOMEDICAL IMAGE PROCESSING
12	Dr. S. Vasuhi	Associate Professor	vasuhi_s@annauniv.edu	SIGNAL PROCESSING, Image Processig , RF, Microwave, Antennas

13	Dr. T. Subashri	Assistant Professor	tsubashri@annauniv.edu	Computer networks, Network security, complexity analysis, cryptography
14	Dr.S. Piramasubramanian	Assistant Professor	spirama@annauniv.edu	Optical Communication, Optoelectronics, RF Photonics and RF Engineering
15	Dr.K.Mariammal	Assistant Professor	mariammal@annauniv.edu	VLSI Signal Processing
16	Dr.C.Rimmya	Assistant Professor	rimmya@annauniv.edu	Optical Communication
17	Dr.G.Balamurugan	Assistant Professor	balanmail12@gmail.com	Communication Systems & Network, Physical Layer Security
18	Dr. V.Sathiesh Kumar	Assistant Professor	sathiesh@gmail.com	Artificial Intelligence, Embedded System Design, Opto-electronics, Image Processing

b) Additional responsibility of Faculty Members if any during the period from **01.07.2020 to 30.06.2021** (Director / Additional Director / Deputy Director / Coordinator)

Sl.No	Name of the Faculty	Designation	Additional responsibility, if any
1	Dr.Mala John	Professor	The Director Centre for University Industry Collaboration
2	Dr. M. Ganesh Madhan	Professor	Head of the Department Department of Electronics, MIT Campus
3	Dr.M.Kannan	Professor	Zonal Co-Ordinator, Zone-4
4	Dr. D. Meganathan	Associate Professor	Executive Warden, MIT Hostels
5	Dr.S.P.Joy Vasantha Rani	Associate Professor	Deputy Warden, Rajam hostel (NRI girls), Cauvery hostel
6	Dr.K.Mariammal	Assistant Professor	NSS - Program Officer SEoE, MIT - Deputy Nodal Officer

2) List of Degrees awarded during the period **01.07.2020 to 30.06.2021**

a. M.Phil. with Name of the Programme

Sl. No.	Title of the Thesis	Name of the Scholar	Name of the Supervisor	Month & Year of Viva-voce conducted
Not Applicable				

**b. M.E. - Communication and Networking**

<b>Sl. No.</b>	<b>Title of the Thesis</b>	<b>Name of the Scholar</b>	<b>Name of the Supervisor</b>	<b>Month &amp; Year of Viva-voce conducted</b>
1.	Noise Cancellation Using Adaptive Algorithms	Agathya R	Ms.Margaret Belsia E	May 2021
2.	An Anonymous Mutual Authentication Scheme For IoT Networks	Anis Begum S	Dr. L.Rajesh	May 2021
3.	Design And Analysis On Dual-Band Mimo Patch Antennas For Isolation Enhancement	Aruna Devi A	Ms. P. Pavithra	May 2021
4.	Brain Tumor Detection And Classification Using Neural Network	Benila Y	Mrs. V.Vijayalakshmi	May 2021
5.	A Deep Learning Approach For Detection Of Malaria Infected Cells In Smartphone Microscopic Images	Breesha R	Mrs. S.Alagu	May 2021
6.	Enhanced Image Encryption Scheme Using Four Dimension Hyperchaotic Chen Map	Dhiveyaswathi T	Dr. G. Balamurugan	May 2021
7.	Blockchain Based Secure Data Transmission In Vanets	Diwakar M	Dr. P Indumathi	May 2021
8.	Kidney Nephrolithiasis Detection And Classification In Computed Tomography Images	Gayathiry P	Mrs. V.Vijayalakshmi	May 2021
9.	Design Of Code -Chaotic Frequency Modulation For Secure And High Datarate Communication	Gobika A	Dr. G. Balamurugan	May 2021
10	Hybrid Segmentation Network For Small Cell Lung Cancer Segmentation From CT Images	Jaisudha J	Dr. G.Kavitha	May 2021
11	Performance Analysis Of Voltage Modulation Of Transistor Laser	Karthikeyan S	Mrs. R.Ramya	May 2021
12	Performance Analysis Of Adaptive Space Time Frequency Mimo-Ofdm System With Subcarrier Shifting Chaotic Sequence	Keerthana D	Ms. M.Shanthi	May 2021
13	Design Of High Performance Rf	Keerthana R	Dr. P.Prakash	May 2021

	Transversal Filters By Varying Tap Weights In Bandwidth Scaling Using Aotf And Dispersive Medium			
14	Broadband Photonic RF Channelizer With 92 Channels	Lakshmi E	Ms. P. Kasthuri	May 2021
15	Dispersion Compensation In Optical Communication Systems Using Delay Line Filters	Prasanna Lakhmi D	Ms. P. Kasthuri	May 2021
16	Mobile Data Gathering With Load Balanced Clustering And Dual Data Uploading In Wireless Sensor Networks	Ramya V	Dr. S.Indira Gandhi	May 2021
17	Breast Cancer Histopathological Image Classification	Savitha G	Dr. G.Kavitha	May 2021
18	Game Theory Based Power Allocation For Multi-User Noma Network	Shilba Shantha Kumari R	Mr. K.Tamilarasan	May 2021
19	A Novel Segmentation Approach For Acute Lymphocytic Leukemia Detection Using Deep Learning	Sneha D	Mrs. S.Alagu	May 2021
20	Performance Evaluation Of Gan Based End To End Communication System And Optimizing The Channel Effects	Vennila R	Mrs. G.Sumithra	May 2021
21	Performance Analysis Of Cognitive Concept In A Heterogeneous Network	Vinith Kumar GK	Dr. PTV Bhuvaneshwari	May 2021

### **M.E. - Wireless Technologies**

<b>Sl. No.</b>	<b>Title of the Thesis</b>	<b>Name of the Scholar</b>	<b>Name of the Supervisor</b>	<b>Month &amp; Year of Viva-voce conducted</b>
1	Design And Characteristic Analysis Of Compact U Slot Microstrip Patch Antenna For Wireless Communication	Arunadevi. P	Mrs. B. Mehar Nisha Begam	May 2021
2	Design And Development Of Cylindrical Antenna Structure For Engine Oil Sensor Application	Bavithra. A	Dr. M.Ganesh Madhan	May 2021

3	Design Of Multiband Bandpass Filter In The Terahertz Range	Cynthia Rajona. P	Dr. P. Prakash	May 2021
4	Radio Over Fiber Links For 5g Applications	Evangelin Ebenezer. A	Dr. M. Ganesh Madhan	May 2021
5	Blockchain Based Malicious Node Detection And Performance Analysis In Wireless Sensor Network	Keshavapriyadharshini. P	Dr.L.Rajesh	May 2021
6	Optimal Clustering And Routing Protocol For Wireless Sensor Network	Nagarathinammal. A	Dr. S. Indira Gandhi	May 2021
7	Multipath Access Management In Wireless Networks With Software Defined Networking	Raeshathul Hafeela	Dr. S. Indira Gandhi	May 2021
8	Analysis Of Band Rejection Characteristics Of Small Sized Uwb Mimo Antenna	Rajalakshmi. K	Mrs. B. Mehar Nisha Begam	May 2021
9	Design And Development Of E - Shaped Cavity Capacitive Sensor To Detect Adulteration In Food Products	Ramyra. C	Dr.S.Piramasubramanian	May 2021
10	Design And Development Of Multiband Patch Antenna For Underwater Communication Using Split Ring Resonator	Sathiyapriya. S	Dr.S.Piramasubramanian	May 2021
11	Design Of Compact Doughnut Slotted Microstrip Antenna Using Csrr For 5g Applications	Swetha.T	Ms.M.Shanthi	May 2021
12	Optimized Cooperative Spectrum Sensing And Resource Allocation For Cognitive 5g-Iot Networks	B.Asthalakshmi	Dr. S.Vasuhi	May 2021
13	Lane Vehicle Detection And Tracking Algorithm Based On Sliding Window	M.Charan	Dr.P.Indumathi	May 2021
14	Microstrip Array Antennas Design For 5g Millimeter Wave Band	S.Dhanya	Dr.C.Rimmya	May 2021
15	Effect Of Optical Confinement Factor On The Voltage Modulation Characteristics Of Transistor Laser	N. Dhenakaran	Mrs. R . Ramya	May 2021
16	Image Processing-Based Detection And Classification Of Leaf Diseases	NK.Hariharan	Dr.P.Indumathi	May 2021

17	Color Image Steganography In Ycbr Space Model Based On Lsb And Reversible Texture Synthesis Technique	K.Maheswari	Dr.S.Vasuhi	May 2021
18	An Hybrid Unsupervised Clustering Based Anomaly Detection Method	K. Nimisha	Dr. T. Subashri	May 2021
19	Interference Management In Ofdma Based Heterogeneous Network Using Stochastic Geometry	M.Nivetha	Dr.S.Ezhilarasi	May 2021
20	Ultra Wide Band Antenna For Wireless Endoscopy Application	M.Sharukeshwari	Dr.C.Rimmya	May 2021
21	Prediction And Classification Of Aerosol Deposition In Lung Using CT Scan Images	M.Thevyashree	Mrs. Vineetha Mathai	May 2021
22	Compact Electromagnetic Band Gap Based Filtenna For Ultra-Wideband Application	N.Vidya	Mr.M.H. Masood	May 2021

### **M.E. VLSI design and Embedded system**

1	Design and Implementation of approximate adders based RNS FIR filter for EEG artifacts and classification	Aishwarya K	Dr.A.Viji	May 2021
2	Design and implementation of Bypass zero multiplier based CNN architecture for MNIST dataset classification	Anju K	Dr.M.Kannan	May 2021
3	Wild pig intrusion detection and product in agriculture form using deep learning	Anushiya K	Mr.K.Veerappan	May 2021
4	video analytics for safety of women in taxis	Arjun Singh Bansal	Dr. Malajohn	May 2021
5	Design a Radix-4 booth multiplier with pre encoding	Arthi R	Dr.K.Mariammal	May 2021
6	Design & development of a similar robotic system with path tracking & plant species recognition	Dineshraj K	Dr.V.Sathiesh Kumar	May 2021

7	Design and analysis of approximate booth multiplier	Kavitha C	Mr.N.Jagadeesh Kumar	May 2021
8	High performance approximate memories for image processing applications	Raja Kohila M	Dr.M.Kannan	May 2021
9	Efficient Design of Analog Amplifier and Filter Structure for Biomedical Applications	Sathya R	Dr.K.Mariammal	May 2021
10	An efficient VLSI implementation of edge detection algorithm for image processing application	Siva Sankari B	Dr.A.Viji	May 2021
11	Design of flexible and scalable binary polynomial multipliers on FPGA	Sofia Devi K	Mrs.C.Sridevi	May 2021
12	Effective heart disease prediction using Hybrid Machine Learning Techniques	Thiviya K	Mrs.C.Sridevi	May 2021
13	Image steganography using deep reinforcement learning	Akshaya S	Dr.A.Viji	May 2021
14	A pipeline architecture for LMS adaptive filter	Arthi T	Dr..S.P.Joy Vasantharani	May 2021
15	Design of an efficient multilayer arithmetic logic unit in Quantum-dot Cellular Automata	Dharshini V	Dr.D.Meganathan	May 2021
16	Carbon Nanotube and Resistive Random Access Memory Based Unbalanced Ternary Logic Gates and Basic Arithmetic Circuits	Evangelin Jerusha P	Dr.D.Meganathan	May 2021
17	Unsupervised detection and reconstruction of Anomalous Sound Signals using Deep Learning technique	Joshwin Darington M	Dr.V.Sathiesh Kumar	May 2021
18	Systolic array design based sampling rate conversion for Multirate signal processing	Jossie D	Dr.S.P.Joy Vasantha Rani	May 2021
19	Approximate multipliers design using approximate adders for image processing applications	Lourdu Jennifer J R	Dr.S.P.Joy Vasantha Rani	May 2021
20	Authentication of Person based on Hand Skiagraphs using Deep	Mano R	Mrs.A.Divya	May 2021

	Learning Technique			
21	Efficient architecture of carry save multiplication and application	Nandhini R	Dr.M.Manikandan	May 2021
22	Design Of Multifactor Authentication Protocol For IOT Based Applications	Pradeepa S	Dr.M.Kannan	May 2021
23	Deep learning based RBFNN classifier approach for visual saliency detection	Preethe J	Mr.K.Veerappan	May 2021
24	Implementation of image encryption algorithm based on chaotic system and DNA coding	Preethi Selvakiruba M	Dr.M.Manikandan	May 2021
25	Rice seeds classification analysis using highly accurate CNN classifier	Sangeetha P	Mr.K.Veerappan	May 2021
26	Design and Verification of FPGA based Hardware accelerator for convolutional neural networks.	Swetha V	Dr.K.Mariammal	May 2021

**c. M.Sc. (2 years) with Name of the Programme**

Sl. No.	Title of the Thesis	Name of the Scholar	Name of the Supervisor	Month & Year of Viva-voce conducted
Not Applicable				

**d. M.Sc. (5 years) with Name of the Programme**

Sl. No.	Title of the Thesis	Name of the Scholar	Name of the Supervisor	Month & Year of Viva-voce conducted
Not Applicable				

**3) Sponsored Research Projects sanctioned during the period from 01.07.2020 to 30.06.2021**

Sl. No.	Name of the Project	Name of the Coordinator	Amount (Rs. in lakh)	Sponsoring Agency
1.	Design and Development of Internet of things (IoT) enabled portable soil nutrient measurement system	Dr. P.T.V. Bhuvanewari, Professor and Dr.V.Sathiesh Kumar, Assistant Professor	Rs.2.27 crores out of which a sum of Rs.1.53 crores has been sanctioned during February 2021	Department of Horticulture and plantation crops (DoHPC), Government of Tamilnadu under Tamil Nadu Innovative Initiative (TANII) state Innovation Fund Scheme



4) Industrial Consultancy and Testing work undertaken during the period from **01.07.2020 to 30.06.2021**

a. Consultancy

Sl. No.	Title of the Consultancy	Name of the Coordinator	Amount (Rs. in lakh)	Sponsoring Agency
Nil				

b. Testing work

Sl. No.	Title of the Testing work	Name of the Coordinator	Amount (Rs. in lakh)	Sponsoring Agency
Nil				

5) **Continuing Education Programmes :**

5.1 Training Programmes / Short term courses and Workshop **conducted** during the period from **01.07.2020 to 30.06.2021**

a. Training programmes

Sl. No.	Title of the Training Programme	Date	No. of Participants	Name of the Coordinator	Sponsoring Agency
1	EC8351- Electronic Circuits-I	24-May-2021 to 29-May-2021	62	Dr.K.Mariamammal Assistant Professor and Mrs.Divya A, Assistant Professor	Centre For Faculty Development, Anna University

b. Short term courses

Sl. No.	Title of the Short term course	Date	No. of Participants	Name of the Coordinator	Sponsoring Agency
Nil					

c. Workshop

Sl. No.	Title of the Workshop	Date	No. of Participants	Name of the Coordinator	Sponsoring Agency
1.	Constitution of India by Mr. R. Kannan Govindarajulu, Advocate & Social Activist	29.04.2021	152	Dr.N.Anitha Teaching Fellow	Nil
2.	Constitution of India by Mr. R. Kannan Govindarajulu, Advocate & Social Activist	06.05.2021	104	Dr.N.Anitha Teaching Fellow "	Nil

5.2 Training Programmes, Short term courses and Workshop **attended** by Faculty members in other Institutions during the period from **01.07.2020 to 30.06.2021**

Sl. No.	Name of the Faculty Member and Designation	Date	Title of the programme attended	Venue
1	Dr.S.P.Joy Vasantha Rani, Associate Professor	10/08/2020- 14/08/2020	5 days online certification program on Gateway to Data Science using Python	Online
2	Dr.G.Kavitha, Associate Professor	08/12/2020- 09/12/2020	Deep learning models and its applications	Online
3	Dr.G.Kavitha, Associate Professor	28/12/2020 - 01/01/2021	Artificial Intelligence	Online
4	Dr.G.Kavitha, Associate Professor	15/03/2021 - 19/03/2021	Advances in Medical Imaging	Online
5	Dr.S.Vasuhi, Associate Professor	18.01.2021 - 15.02.2021	Women Entrepreneurship Programme	Online
6	Mrs.G.Sumithra Assistant Professor	18/12/2020- 10/1/2021	Communication And Networking Technologies	Online
7	Dr.T.Subashri Assistant Professor	18.12.2020 - 10.01.2021	Three Week Industrial Training on "Communication & Networking Technologies	Online
8	Dr.T.Subashri Assistant Professor	15.02.2021 - 19.02.2021	FDP on Wearable Devices by ATAL and Anna University	Online
9	Mrs.C.Sridevi, Assistant Professor	5/7/2020	Start- up Schemes from Govt. of Tamilnadu	Online
10	Mrs.C.Sridevi, Assistant Professor	18/12/2020 - 10/01/2021	Three Weeks Industrial Training for Faculty in Communication and Networking Technologies	Online
11	Mrs.C.Sridevi, Assistant Professor	26/07/2021 - 30/07/2021	Short term Course - 5-day online FDP on the theme Inculcating Universal Human Values in Technical Education	Online
12	Dr.K.Mariammal, Assistant Professor	02/07/2020- 17/07/2020	Two Weeks Faculty Development Programme on "Advanced Concepts for Developing MOOCS" organized by Teaching Learning Centre, Ramanujan College, University of Delhi, Sponsored by MHRD,PMMMNTT, India	Online

13	Rimmya C Assistant Professor	18/12/2020- 10/01/2021	Communication and Networking Technologies	Online
14	Mrs.Divya A, Assistant Professor	18/01/2021- 29/01/2021	Government Officials Training on Internet of Things Technology	Online
15	Dr. G. Balamurugan, Assistant Professor	30/03/2021- 03/04/2021	Cyber Security Tools	Online

5.3 Conferences / Seminars / Symposium **conducted** by the Department / Centre / Institute during the period from **01.07.2020 to 30.06.2021**

a. Conferences

Sl. No.	Name of the Conference conducted	Date	No. of participants	Venue	Sponsoring Agency
Nil					

b. Seminars

Sl. No.	Name of the Seminar conducted	Date	No. of participants	Venue	Sponsoring Agency
Nil					

c. Symposium

Sl. No.	Name of the Symposium conducted	Date	No. of participants	Venue	Sponsoring Agency
Nil					

6) **Faculty Development**

6.1 Conferences / Seminars / Symposium attended by Faculty members of Anna University at **National Level (within India)** during the period from **01.07.2020 to 30.06.2021**

Sl. No.	Faculty Name with Designation	Names of the Conferences/ Seminars / Symposium attended	Date	Address of Organized Institute
1	Dr.G.Kavitha Associate Professor	Workshop on “ Deep learning models and its applications”	08-12-2020 - 09/12/2020	SSN college of Engineering, Chennai
2	Dr.G.Kavitha Associate Professor	AICTE training and learning (ATAL) Academy Online FDP on “ Artificial Intelligence”	28.12.2020 - 01.01.2021	NIT Tiruchirapalli
3	Dr.S.Vasuhi Associate Professor	IEEE 4th International Conference on Computer, Communication and Signal Processing (ICCCSP)	28.09.2020	Sri Sivasubramaniya NadarCollege of Engineering, Kalavakkam - 603 110
4	Dr.S.Piramasubramanian Assistant Professor	AICTE Training and Learning Academy (ATAL) - “3D Printing and Design”	07/12/2020 - 11/12/2020	online FDP
5	Dr.S.Piramasubramanian Assistant Professor	Three Week Industrial Training on “Communication and Networking Technologies”	18/12/2020 - 10-01-2021	Rajiv Gandhi Memorial Telecom Training Centre (RGM TTC), Bharat

				Sanchar Nigam Limited (BSNL), Meenambakkam, Chennai
6	Dr.S.Piramasubramanian Assistant Professor	AICTE recognized Faculty Training Programme on “Recent Technologies for Mobile Broadband Transformation”	17/05/2021 - 21/05/2021	National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh
7	Dr.S.Piramasubramanian Assistant Professor	AICTE Training and Learning Academy (ATAL) online FDP on “Industrial Internet of Things (IIoT)”	07/06/2021 - 11/06/2021	Swami Keshvanand Institute of Technology, Management & Gramothan, Jagatpura, Jaipur
8	Dr.S.Piramasubramanian Assistant Professor	AICTE Training and Learning Academy (ATAL) - “Patent Drafting and Filing”	14/06/2021 - 18/06/2021	Jerusalem Engineering College, Chennai online FDP
9	Mrs.C Sridevi Assistant Professor	Deep Learning Models and its Applications	08/12/2020 - 09/12/2020	SSN College of Engineering
10	Mrs.C Sridevi Assistant Professor	National level seminar on "Machine learning to Deep Learning: A journey for remote sensing data classification"	05/07/2021 - 09/07/2021	ISRO - IIRS, India
11	Dr. V. Sathiesh Kumar Assistant Professor	Three weeks Industrial Training on "Communication and Networking Technologies"	26/04/2021 - 15/05/2021	RGMTTC, BSNL

**6.2. Conferences / Seminars / Symposium attended by Faculty members of Anna University at International Level (within India) during the period from 01.07.2020 to 30.06.2021**

<b>Sl. No.</b>	<b>Faculty Name with Designation</b>	<b>Names of the Conferences / Seminars / Symposium attended</b>	<b>Date</b>	<b>Address of Organized Institute</b>
1	Dr P Indumathi Professor	IconIC 2k21	26/3/2021 and 27/3/21	Panimalar Engineering College
2	Dr.P.T.V.Bhuvaneshwari Professor	1st International Conference on Innovative Technology for Sustainable Development (ICITSD-2021)	27/01/2021	School of Computer Science and Engineering, VIT Chennai.
3	Dr.S.Vasuhi Associate Professor	5th International Conference on Trends in Electronics and Informatics (ICOEI 2021)	04.06.2021	SCAD College of Engineering and Technology, College in Cheranmadevi, Tamil Nadu
4	Dr.K.Mariamammal Assistant Professor	AICTE Sponsored International Conference on Antenna Innovations, 5G Communications and	07.11.2020	Velammal Institute of Technology, Chennai, INDIA

		Network Technologies (ICA5NT 2020)- Title:"FIR Filter Architecture using Retiming and CSLA"		
5	Dr.C Sridevi Assistant Professor	International level Short Course on "2-week online FDP on, "Speech, audio and image processing using deep learning techniques: Research issues, innovation and applications"	07/07/2021 - 17/07/2021	E & ICT Academy NIT Warangal & UCE Ramanathapuram, India
6	Dr.C Sridevi Assistant Professor	Short Course on "Online FDP on Artificial Intelligence"	22/02/2021 - 26/02/2021	ATAL - AICTE
7	Dr.C Sridevi Assistant Professor	"Short Term Course on Advances in Medical Imaging"	15/03/2021 - 19/03/2021	IIT - Varanasi, India
8	Dr. G. Balamurugan Assistant Professor	9th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2021)	25/06/2021- 26/06/2021	Departments of Computer Science & Engineering and Electronics & Communication Engineering. National Institute of Technology Mizoram, India
9	Dr. V. Sathiesh Kumar Assistant Professor	Conference on Computer Vision and Image Processing (CVIP-2020), IIIT Allahabad	04/12/2020 - 06/12/2020	IIIT Allahabad

**6.3 Conferences / Seminars / Symposium attended by Faculty members at International Level (outside India) at other countries during the period from 01.07.2020 to 30.06.2021**

Sl. No.	Faculty Name with Designation	Name of the Programme attended	Name of the Country visited	Name of Travel grant used	Date
Nil					

**6.4. Guest Lectures delivered by Anna University Faculty members at other Institute during the period from 01.07.2020 to 30.06.2021**

Sl. No.	Name of the Faculty Member	Designation	Name of the programme	Address of Organized Institute	Date
1	Dr.M.Ganesh Madhan	Professor	Webinar on Trends in EMI and EMC	Department of Electronics and Communication Engineering St.Joseph's College of Engineering, Sriperumpudur	11.7.2020

2	Dr.M.Ganesh Madhan	Professor	TEQIP III Sponsored Short Term Training Program on Recent trends in RF Technology for 5G and IoT (Online)	Electronics Engineering Department Sardar Vallabhai National Institute of Technology, Surat	13th October 2020
3	Dr.M.Ganesh Madhan	Professor	Complete Matlab Essentials leading to application Development (Online)	Electronics and Communication Engineering Department Sri Venkateswara College of Engineering, Sriperumbudur in association with IETE	24th April 2021.
4	Dr.S.P.Joy Vasantha Rani	Associate Professor	One day National e-conference on "Recent trends in Electronics, VLSI, Embedded systems, Communication and Networking"	Dr.Sivanthi Aditanar College of Engineering, Tiruchendur - 628215	8/4/2021
5	Dr.G.Kavitha	Associate Professor	Three Day Workshop on Recent Trends in Biomedical Instrumentation and Assistive Technology” (on-line mode only) under SPARC programme	Department of Instrumentation and Control Engineering National Institute of Technology, Tiruchirappalli	28-05-2021
6	Dr.G.Kavitha	Associate Professor	“Two weeks Faculty Development Programme (FDP) on “Machine Learning Techniques for imaging and Healthcare with Python”	Sri Sai Ram Engineering College	29-03-2021
7	Dr.K.Mariammal	Assistant Professor	Sponsored Online Six Day Faculty Development Training Programme on Ad hoc and Wireless	Department of ECE, PSNA College of Engineering and Technology, Dindigul	01.06.2021

			Sensor Networks (EC8702)		
8	Dr.Rimmya C	Assistant Professor	Webinar on Microwave Filter Design	Sri Renganathar Institute of Engineering and Technology	29/10/2020
9	Dr.S.Piramasubramanian	Assistant Professor	Optical Fiber Measurements	Vellammal Engineering College, Chennai	17/08/2020
10	Mrs.A.Divya	Assistant Professor	Introduction to Image Processing	QIS College of Engineering and Technology (Ongole, Andhra Pradesh)	24.9.2020
11	Dr. V. Sathiesh Kumar	Assistant Professor	AICTE sponsored 2 Weeks online FDP on Applications of Machine learning and Deep learning in Electrical Engineering	Kamaraj College of Engineering and Technology	25/01/2021, 29/01/2021, 30/01/2021

6.5 Honours / Awards received from State / National / International bodies by Anna University Faculty members during the period from **01.07.2020 to 30.06.2021**

Sl. No.	Name of the Faculty Member	Designation	Name of the Honour / Award	Name of the Institute / Organization issued the Honours / Awards
1.	Dr. G. Balamurugan	Assistant Professor	NPTEL Topper 2% - Silver Medal	IIT Kharagpur
2.	Dr. V. Sathiesh Kumar	Assistant Professor	TNSCST Young Scientist Fellowship for the year 2019 – 2020 has been awarded to carry out research activity at IIT Indore for a period of two months	Tamilnadu State Council for Science and Technology

7) Details of Visitors to the Departments/Centres/Institute other than Anna University Faculty members during the period from **01.07.2020 to 30.06.2021**

Sl. No.	Name of the visitor	Designation	Address of office / organization	Purpose of visit	Date of visit
Nil					

8) New Equipment / Instruments purchased costing above **Rs.5.00 lakh** during the period from **01.07.2020 to 30.06.2021**

Sl. No.	Name of the New Equipment / Instrument purchased	Nature of work / Function of the Equipment / Instrument	Purchase cost (above Rs. 5.00 Lakh)
1	Desktop computer - Acer i7 Model (20 Nos.)	For Laboratories	Rs.10.26 Lakhs
2	Desktop computer - Acer i7 Model (13 Nos.)	For Laboratories	Rs.6.67 Lakhs
3	Academic Site License Teaching standard Service program - 25 users	For Lab View Teaching - Lab Modernization	Rs.9.97 Lakhs
4	Qualnet 9.2 version - 5 users Academic License	Lab Modernization	Rs.9.98 Lakhs

9) a. Research Papers presented in **National** Conferences / Seminars / Symposium / Workshop during the period from **01.07.2020 to 30.06.2021**

Sl. No.	Faculty Name with Designation	Title of the Research paper presented	Name of the National Conference /Seminar / Symposium	Venue	Date
1.	Dr.M.Ganesh Madhan	Performance Evaluation of Free Space Optical Link driven by temperature dependent Quantum Cascade Lasers	IV National Workshop on Optics & Photonics: Theory & Computational Techniques, OPTCT-2020	IIT Roorkee	26-27th December 2020
2	Dr.M.Ganesh Madhan	Design and development of capacitive sensor for water quality assessment	National Symposium on Instrumentation (NSI-42), symposium organized by Instrumentation Society of India	DRDO, KCT, Online mode	Dec 28 – 29, 2020
3	Dr.M.Ganesh Madhan	Estimation of The Percentage of Water in Milk Samples by Laser Based Image Processing Technique”	National Symposium on Instrumentation (NSI-42), symposium organized by Instrumentation Society of India,	DRDO, KCT, Online mode	Dec 28 – 29, 2020
4	Dr P Indumathi	Detection of Diabetic Retinopathy using deep convolutional neural networks	ICCVBIC 2020	online (RVS Technical Campus, Coimbatore)	19-20 November 2020



5	Dr.S.Vasuhi	Image Steganography: 2-Bit XOR Algorithm Used In YCbCr Color Model With Crypto-algorithm	IEEE 4th International Conference on Computer, Communication and Signal Processing (ICCCSP)	Sri Sivasubramaniya Nadar College of Engineering Kalavakkam Tamil Nadu 603110	28.09.2020
6	Dr. V. Sathiesh Kumar Assistant Professor	Face-Spoof detection using VGG-Face Architecture	National virtual conference on Advanced Informatics, Electronics and Vision (NCAIEV21)	Dept. of ECE, Dr. Mahalingam College of Engineering and Technology, Pollachi	23/04/2021

b. Research Papers presented in **International** Conferences / Seminars / Symposium / Workshop during the period from **01.07.2020 to 30.06.2021**

Sl. No.	Faculty Name with Designation	Title of the Research paper presented	Name of the International Conference /Seminar / Symposium	Venue	Date
1	Dr.M.Ganesh Madhan Professor	Design And Simulation Of Multilayer Patch Antenna Structure For Engine Oil Sensor Application	”, International Conference on VLSI & Microwave and Wireless Technologies (ICVMWT – 2021)	Madan Mohan Malaviya University of Technology, Gorakhpur	20- 21 March,2021
2	Dr P Indumathi Professor	Lane detection and tracking algorithm based on curve fitting model	IconIc 2k21	online (Panimalar Engineering College)	26/3/2021 and 27/3/2021
3	Dr.P.T.V.Bhuvaneshwari Professor	Improving Throughput in Sub- Nyquist Spectrum Sensing Using a Cluster Model for Cognitive Radio Networks	ICITSD-2021	School of Computer Science and Engineering , VIT, Chennai.	27/01/2021
4	Dr.S.P.Joy Vasantha Rani Associate Professor	Deep Learning based Soft Sensor for Bioprocess Application	IEEE Second International Conference on Control, Measurement and Instrumentation (CMI), India	India	8/01/2021- 10/01/2021

5	Dr.G.Kavitha Associate Professor	Integrated Harris Hawks Optimization Based Classifier: An Approach to Cardiovascular Disorder Prediction	International Conference on Computational Sciences: Modelling, Computing and Soft Computing (CSMCS 2020)	NIT, Calicut, Kerala (presented in online mode)	10-09-2020 to 12-09-2020
6	Dr.S.Vasuhi Assistant Professor	Resource Allocation Approach for Hybrid Cognitive Visible Light Communication	5th International Conference on Trends in Electronics and Informatics (ICOEI 2021)	SCAD College of Engineering and Technology, College in Cheranmadevi, Tamil Nadu	04.06. 2021
7	Dr.K.Mariamammal Assistant Professor	Design of Adjustable Digital Filter for SDR Applications	AICTE Sponsored International Conference on Antenna Innovations, 5G Communications and Network Technologies (ICA5NT 2020)	Velammal Institute of Technology, Chennai, INDIA (Online mode)	07.11.2020
8	Dr. G. Balamurugan Assistant Professor	Anti-Jamming Wireless Communication Using Chaos Based Code Selection Spread Spectrum Technique	9th International Conference on Frontiers of Intelligent Computing: Theory and Applications	National Institute of Technology Mizoram, India	25.06.2021- 26.06.2021
9	Dr. V. Sathiesh Kumar Assistant Professor	Positioning the 5-DOF Robotic ARM using single stage Deep CNN model	International conference on Biosignals, Images and Instrumentation	SSN College of Engineering	25/04/2021 - 27/04/2021

10) Research papers published in Journals during the period from **01.07.2020 to 30.06.2021**

a. Research papers published In **National Journals**

Sl. No.	Name of the Title	Author's Name	Name of the Publisher	Month & Year
1	Simulations of Mode Division Multiplexed Free Space Optics with Photonics Traversal Filter using Multi-Mode Fibe	Dr. P. Prakash	Journal of Microelectronics, Electronic Components and Materials	Dec-2020

2	Non-Invasive Vibration Measurement for Diagnosis of Bearing Faults in 3-Phase Squirrel Cage Induction Motor Using Microwave Sensor	Dr.Meganathan D	IEEE Sensor	Jan-2021
3	Adaptive density based data mining technique for detection of abnormalities in traffic video surveillance	Dr.S.Vasuhi	Journal of Intelligent & Fuzzy Systems	July-2020
4	An efficient Inception V2 based Deep Convolutional Neural Network for Real-Time Hand Action Recognition	Dr. V. Sathiesh Kumar	IET Image Processing	Feb-2020

b. Research papers published In **International Journals**

Sl. No.	Name of the Title	Author's Name	Name of the Publisher	Month & Year
1.	Spiking Neural Network based on Joint Entropy of Optical Flow Features for Human Action Recognition	Dr.Mala John	Springer-Verlag	Dec-20
2	Study of Gain Switching in Vertical Cavity Surface Emitting Laser under Different Electrical Pulse Inputs	Dr.M. Ganesh Madhan	Defense Science Journal, DESIDOC	September 2020
3.	Performance Analysis of Dispersion Compensation Schemes with Delay Line Filter	Dr.M. Ganesh Madhan	Informacije MIDEM- Journal of Microelectronics	December 2020
4.	Impedance Characteristics of Mid Infra red Quantum Cascade Lasers	Dr.M. Ganesh Madhan	Optics and Laser Technology, Elsevier	February 2021
5.	Performance evaluation of Free space optical link by incorporating the device parameters of Quantum Cascade Laser based transmitter	Dr.M. Ganesh Madhan	Laser Physics Letters, IOP Publications	March 2021
6.	Graphene based Microstrip Antenna for Triple and Quad Band Operation at Terahertz Frequencies	Dr.M. Ganesh Madhan	OPTIK – International Journal of Light and Electron Optics	April 2021
7.	A compact antenna structure for circular polarized terahertz radiation	Dr.M. Ganesh Madhan	OPTIK – International Journal of Light and Electron Optics	April 2021
8.	Analysis of Distortion Reduction in 1.3 $\mu\text{m}$ Transistor Laser using Schottky Diode based Predistortion Network	Dr.M. Ganesh Madhan	OPTIK – International Journal of Light and Electron Optics	April 2021
9.	A simple equivalent circuit model of photoconductive dipole antenna for the study of Terahertz intensity modulation	Dr.M. Ganesh Madhan	Optical and Quantum Electronics	March 2021

10	Performance Evaluation of Free Space Optical Link driven by Gain Switched Temperature Dependent Quantum Cascade Lasers	Dr.M. Ganesh Madhan	Laser Physics Letters, IOP Publications	April 2021
11	Simulation studies on Polarization modulated Vertical cavity surface emitting laser for combined fiber and free space optical links	Dr.M.Ganesh Madhan	OPTIK – International Journal of Light and Electron Optics, Elsevier GmbH, Elsevier	Oct-20
12	An Efficient Chaotic Optical signal generation scheme using Gain lever effect in Bi-Section Laser diodes	Dr.M.Ganesh Madhan	Optics Communication – Elsevier	Nov-20
13	Effect of Collector Voltage on the Large and Small Signal Modulation Characteristics of 980 nm Transistor Laser	Dr.M.Ganesh Madhan	Defense Science Journal, DESIDOC	Sep-20
14	Joint user clustering and salp based particle swarm optimization algorithm for power allocation in MIMO-NOMA	Dr P Indumathi	IOS press	Apr-21
15	Design and implementation of Secure Smart Shopping System using Arduino	Dr.P.T.V.Bhuvaneshwari	International journal of Innovative Technology and Exploring Engineering	Feb-21
16	Maximization of Sum Throughput in LTE Heterogeneous Network using Region Splitting-Based Resource Partitioning Scheme	Dr.P.T.V.Bhuvaneshwari	Wireless Personal Communication, Springer US	Jun-21
17	An Enhanced Framework for Traffic Load Balancing and QoS Provisioning in SDN	Dr.S.Indira Gandhi	Wireless Personal Communication	August 2021
18	Compact 4-bit all optical digital to analog converter based on photonic crystal ring resonator	Dr.S Indira Gandhi	Laser physics	Oct 2020
19	Intra-Vascular Ultra Sound Image Classification System for the Diagnosis of Coronary Artery Disease Using Adaptive Wavelet Transform with Support Vector Machine	Dr.Manikandan M	AMERICAN SCIENTIFIC PUBLISHERS	Jan 2021
20	Design of 4-port Multi-Channel Lattice-Form Optical Band Pass Filter for Radio over Fiber Application	Dr. P. Prakash	Solid State Technology	Jan-21
21	A systematic design of novel energy efficient 64-bit parallel-prefix adder	Dr.D.Meganathan	IETE Journal of Research	Jan-21

22	Combined Metaheuristic algorithm and radiomics strategy for the analysis of neuroanatomical structures in Schizophrenia and Schizoaffective Disorders	Dr.G.Kavitha	Innovation and Research in Bio Medical engineering (IRBM), Elsevier	Oct-20
23	“An automated classification of HEp-2 cellular shapes using Bag-of-key point features and Ant Colony Optimization”	Dr.G.Kavitha	Biocybernetics and Biomedical Engineering, Elsevier Publications	Mar-21
24	Multicamera Video Stitching For Multiple Human Tracking	Dr.S.Vasuhi	International Journal of Computer Vision and Image Processing (IJCVIP), IGI Global	Jan-21
25	Recognizing Partially Occluded License Plate Information on Occurrence of Shadow	Dr.S.Vasuhi	Dynamic Publishers, Inc.	April -21
26	Fault Identification and Isolation for components of photovoltaic energy storage system based on IEEE21451 standard	Dr.S.Vasuhi	John Wiley & Sons, Ltd	April -21
27	Multiple Bandwidth FIR Filter Design with Adaptive Algorithms for Hearing Aid Systems	Dr.K.Mariamammal	Indian Journal of Pure & Applied Physics	August 2020
28	An Efficient Chaotic Optical signal generation scheme using Gain Lever Effect in bi-section laser diodes	Dr.Rimmya C	Elsevier	Nov-20
29	An efficient chaotic optical signal generation scheme using gain lever effect in bi-section laser diodes", Optics Communications, published by Elsevier. Vol. 475, Issue 15, pp. 126202 (2020)	Dr.S.Piramasubramanian	Elsevier	November 2020
30	Effect of Franz-Keldysh absorption on the short optical pulse generation in Transistor Laser", Optics Communications, published by Elsevier. Vol. 474, Issue 1, pp. 126087 (2020)	Dr.S.Piramasubramanian	Elsevier	November 2020
31	"Effect of collector voltage on the Large and Small signal modulation characteristics of 980 nm Transistor laser", Defence Science Journal, published by DRDO Publications. Vol. 70, Issue 5, pp. 529-533	Dr.S.Piramasubramanian	DRDO	September 2020

32	"Analysis of Distortion Reduction in 1.3 Åµm Transistor Laser using Schottky Diode based Predistortion Network", Optik - International Journal for Light and Electron Optics, published by Elsevier . Vol. 231, Issue 1, pp. 166442	Dr.S.Piramasubramanian	Elsevier	April 2021
33	Improved Classification And Accurate Identification Of Lung Cancer Stages In Computed Tomography Images Using Modified Support Vector Machine Classifier	Mrs.C.Sridevi	Solid State Technology	FEB 2021
34	Remote identification and ranking of Sodium in bulk liquid under high pressure condition	Dr. V. Sathiesh Kumar	Journal of Optics and Laser Technology	June 2021

11) a. Books written by Faculty members during the period from **01.07.2020 to 30.06.2021**

Sl. No.	Name of the Books written	Name of the Faculty	Name of the Publisher	Month & Year
1	Traffic congestion detection and management using Vanet and CR-Vanet	Dr P Indumathi	Scholars' Press	Dec-20

b. Book Chapters written by Faculty members during the period from **01.07.2020 to 30.06.2021**

Sl. No.	Name of the Book Chapter written (with Page No.)	Name of the Faculty	Name of the Publisher	Month & Year
1	An Optimized FPGA Architecture for Sleep Level Categorization Using Fuzzed Utilized Machine Learning Approach 214-224	Dr.K.Mariammal	IGI Global	June 2021
2	Integrated power and subcarrier assignment by cooperative communications in LTE-A networks (pp 123-135)	Dr P Indumathi	Research India Publication	November 2020
3	Algorithms for Intelligent Systems - (Pages 527-534)	Dr. P. Prakash	Springer	March 2021
4	Condition Monitoring of Industrial Insulation Materials Using LIBS Technique (Chapter 2)	Dr. V. Sathiesh Kumar	Nova Science Publishers	December 2020

12) Patents obtained during the period from **01.07.2020 to 30.06.2021**

<b>Sl. No.</b>	<b>Title of the Patent</b>	<b>Inventors</b>	<b>Patent Number</b>	<b>Patent organization</b>	<b>Month &amp; Year</b>
Nil					

Yours faithfully

**HoD**