



Center for Research and Development

Vision

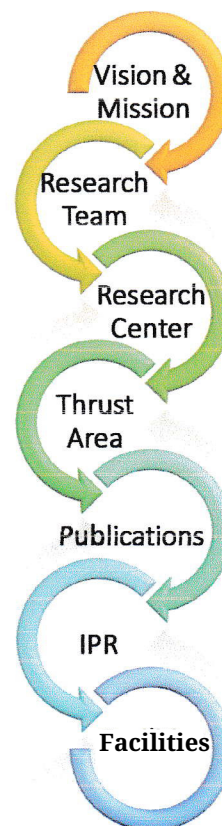
To establish a cohesive environment of research and innovation wherein faculty are inspired and empowered to expand the scope of intellectual capital.

To facilitate national and international researchers to collaborate with us in the progress of knowledge harvesting and the transformation of breakthroughs into practical benefits for society.

Mission

To Promote and advancement of interdisciplinary research at the forefront of technology to create new well-being technology and systems that meet society's demands.

To ensure the most efficient and effective use of our institution's cognitive, financial, and physical space in order to build a spirit of research and innovation.



Research Team

S.No	Name of the Member	Designation	Department	Role	Phone No./ E-mail Id
1	Dr.P.Periasamy	Associate Professor	S&H	Convener	9894760725 nietperiasamy@nehrucolleges.com
2	Dr.D.Satish Kumar	Associate Professor	CSE	Co-Convener	6382866018 nietstathishkumar@nehrucolleges.com
3	Dr.M.A.Raja	Professor	ECE	Member	9786690344 nietraja.ma@nehrucolleges.com
4	Dr.K.Sathish Kumar	Associate Professor	AERO	Member	9677171415 Nietdrksathishkumar@nehrucolleges.com
5	Dr.R.Anand	Associate Professor	EEE	Member	9994848610 Nietanand.r@nehrucolleges.com
6	Dr.V.M.M.Thilak	Associate Professor	MECH	Member	9003436674 nietthilak@nehrucolleges.com
7	Dr.S.P.Arunkumar	Associate Professor	MCT	Member	9698073075 nietarunkumar.sp@nehrucolleges.com
8	Dr.S.Shanthi	Professor	MBA	Member	9894207915 Shanthi.diwakar70@gail.com

P. Mani Arasan
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Best Publications by the Faculty Members (2020-2021)

S.No	Name of the faculty	Journal name	Title	Type
				UGC/SCI/Scopus
1	Dr.A.Sankaran,	International Journal of Engineering Research & Technology	Numerical Study of effect of Drag reduction add-on device on ageneric car	Scopus
2	Dr. K. Sathish Kumar &Dr.B.R. Senthil Kumar	Aircraft Engineering and Aerospace Technology	Numerical analysis of supersonic co-flow jet with varying lip thickness	SCI
3	Dr. K. Sathish Kumar	Aircraft Engineering and Aerospace Technology	Semi-circular corrugated tabs to control subsonic and correctly expanded sonic jets	SCI
4	Dr. S. Rathinavel	Journal of polymers and the environment	Synthesis of Silver Nanoparticles through Orange Peel Powder for Antibacterial Composite Filler Applications	SCI
5	Dr. K. Sathish Kumar	Aircraft Engineering and Aerospace Technology	Numerical investigation of critical lip thickness of subsonic co-flowing jet	SCI
6	Dr. C.R.Raajeshkrishna	Advances in Materials & Processing Technologies	Effect of carbon/kevlar reinforcement and hybrid order on mechanical properties of glass/epoxy composites	SCI
7	Dr.C.R.Raajeshkrishna	Polymers and Polymer Composites	Investigation of Mechanical Properties of Jute Epoxy Composite with Fruit Waste (Citrullus Vulgaris Peel) Filler for Automotive Applications	SCI
8	Dr.C.R.Raajeshkrishna	International Journal of Polymer Analysis and Characterization	Friction and thermomechanical characterization of nano basalt reinforced epoxy composites	SCI
9	Dr.C.R.Raajeshkrishna	International Journal of Polymer Analysis and Characterization	Thermomechanical characterization and morphological analysis of nano basalt reinforced epoxy nano composites	SCI
10	Dr.C.R.Raajeshkrishna	S N Applied Sciences	Effect of reinforcements and processing method on mechanical properties of glass and basalt epoxy composites	SCI
11	A.Senthamilselvi	Digest Journal of Nanomaterials and Biostructures	Effect of V Addition on Dry Sliding Wear Behaviour of Titanium Matrix Composites	SCI
12	A.Senthamilselvi	Digest Journal of Nanomaterials and Biostructures	Effect of high temperature wear and corrosion behaviour of sintered titanium reinforced with vanadium particle,	SCI
13	A.Senthamilselvi	Advances in Material and Processing Technologies, Taylor and Francis	Tribological behaviour of AA7168 hybrid composite sheets for aerospace structures fabricated through COMPO casting	ESCI
14	A.Senthamilselvi	Recent & Innovation Trends in Computing & Communication	Crack Growth under Random Loading	Scopus
15	Dr. R. Ramasamy, &S.Balaji	Vidyabharati International Interdisciplinary Research Journal (Special Issue)	Designing Of Typical Slithering Platform For Helicopter Using Composite Materials	WoS
				WoS

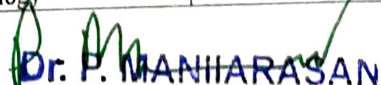

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16	S. Balaji	International Journal Of Advanced Research In Engineering And Technology (Ijaret)	Characterization And Microstructure Study Of Al5083/Fly Ash/Silicon Carbide Particulate Composites Fabricated By Stir Casting Methodology	Scopus
17	S. Balaji	Materials Today: Proceedings	Optimization and Modeling Of Drilling Variables On Amcs Using Taguchi Technique And Regression Analysis	SCI
18	S. Balaji	Test Engineering And Mangement	The Investigation Of Microstructure And Tribological Behaviors For Al6063/Sic-Fly-Ash Metal Matrix Hybrid Composites	Scopus
19	S. Balaji	Trans Stellar Publications	Multi-Response Optimization Of Machining Parameters On Phenolic Bakelite Hgw 2088 Using Desirability Function Approach	Scopus
20	S. Balaji	Materials Today: Proceedings	Dry Sliding Wear Behaviour Of Aluminium Metal Matrix Composite Using Response Surface Methodology	SCI
21	S. Balaji	International Journal Of Recent Technology And Engineering (Ijrte)	Optimization Of Wear Behavior Of Al 5456 Alloy/Tib2 Composite Using Anova And Taguchi Method	Scopus
22	Dr. S. Rathinavel	Tierarztliche Praxis	Comparative Numerical Analysis of CD Nozzle with Hydrogen and Deutrium as Fuel	SCIE
23	S.Selvakumar	Materials today proceeding	Static structural analysis of super gear using ANSYS 15.0 and material selection by COPRAS, MOORA techniques	Scopus
24	S.Selvakumar	IOP Conf.series: Materials Science and Engineering	Experimental Investigation on the Effect of Fused Deposition Modelling Parameters for HIPS Materials by Experimental Design and MRO Techniques	Scopus
25	Dr. N. K. Sakthivel & Dr. S. Subasree	International Journal of Engineering & Technology, 2019.	Deep Learning based Intelligent HumanDiseases-Gene-Association Prediction Technique for High Dimensional Human DiseaseData Sets	Scopus
26	Dr. S. Subasree & Dr. N. K. Sakthivel	International Journal of Engineering & Technology, 2019.	ECAGS : An Enhanced Cancer-AssociatedGene Selection Technique for Cancer Patterns Classification and Prediction	Scopus
27	Dr. S. Subasree	Kala Sarovar	Indoor navigation and Tourist guide using Augumented reality	UGC
28	Dr. S. Subasree	Kala Sarovar	Design and Development of an anaemia Disease classification and perdition using deep learning method.	UGC
29	S. Priya	Annals of the Romanian Society for Cell Biology, Volume. 25, No. 4.	A Soil Prediction and Classification of Crop Yield Using an Intelligence Technique with Big Data	Scopus
30	Dr. S. Subasree & Dr. N. K. Sakthivel	Biomedical Signal Processing and Control- Nov 2021	Combining the advantages of radiomic features based feature extraction and hyper parameters tuned RERNN using LOA for breast cancer classification	SCI
31	M.Balakrishnan	International journal of scientific and Research publications	Automatic Thrash Collector	Peer-viewed


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32	M.Balakrishnan	Journal of materials research and technology	Friction stir processing of Al3Ni Intermetallic particulate reinforced castaluminum matrix composites: Microstructure and tensile propoerties	SCI
33	M.Balakrishnan	International research journal of modernization in Engineering and Technology and science	GPS and GSM based smart walking stick for visually impaired person	Peer-viewed
34	Dr.SP. Arunkumar	Materials Today: Proceedings	Investigating the Effect of Thermal Cycling on Thermal Characteristics of the Nano-Silica based Phase Changing Material (PCM)	Scopus
35	Dr.SP. Arunkumar	AIP Conference Proceedings	Performance and combustion analysis of diesel engine fueled by blends of diesel+pyrolytic oil from polyalthialongifolia seeds	Scopus
36	M.Balakrishnan	Solid state Technology	Tensile and microstructural behaviour of AMC reinforced with metallic particle pre and after friction stir processing	SCI
37	Dr.SP. Arunkumar	Fuel Processing Technology	Water in waste-derived oil emulsion fuel with cetane improver: Formulation, characterization and its optimization for efficient and cleaner production	SCI
38	Dr.SP. Arunkumar	Materials Today: Proceedings	Taguchi Optimization of Metal Inert Gas (MIG) Welding Parameters to withstand High Impact Load for Dissimilar Weld Joints	Scopus
39	Dr.V.Jayaraj, Mrs.K.Sivakami, Mr.M.MohammedKasim	International Journal on Applications in Information and Communication Engineering	Low Power Area-Efficient Carry Select Adder	UGC
40	Dr.V.Jayaraj, T.Prabu, S.Mohan	International Journal on Applications in Engineering and Technology	A Study on the Analysis of HRV Signals	UGC
41	K Nagarajan, Vinod Kumar, Dr.V.Jayaraj	International Journal on Applications in Information and Communication Engineering	Comparison of Coding Techniques Of OFDM For High Bandwidth Applications	UGC
42	Dr.V.Jayaraj, Mrs.S.M.Deepa	International Journal on Applications in Engineering and Technology	A New VLSI Architecture for Modified Booth Algorithm using Vedic Multiplier	UGC UGC
43	Dr.V.Jayaraj	International Research Journal Of Engineering and Technology	Image Denoising using Modified Fuzzy C means and Fractional Convolutional Method	UGC
44	Dr.V.Jayaraj, K.Nagarajan, T. Prabu, S.Mohan	International Journal on Applications in Engineering and Technology	Content Protection System using Matching Object for Cloud Based Multimedia	UGC
45	Dr.V.Jayaraj, K.Nagarajan, T. Prabu, S.Mohan	International Journal on Applications in Engineering and Technology Volume 7 :	A Review of Graphical Password Strategy in Smart Android Phones	UGC
46	Dr.V.Jayaraj, K.Nagarajan	International Journal on Applications in Engineering and Technology	Contourlet Transform for Speckle Denoising	UGC


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47	Dr.R.Deepa	International Journal of Research Publication and Reviews	Iterative Tree Based Adaptive Threshold Techniques for Large MIMO System	UGC
48	Dr. M.A.Raja	European Journal of Molecular & Clinical Medicine	An Efficient Authentication Scheme for IoT based WBANs	UGC
49	Dr. M.A.Raja	Wesleyan Journal of Research	Efficient Fault Tolerance strategy Selection algorithm in cloud computing	UGC
50	Dr.M.A.Raja	Clinical Phytoscience, Springer open	Food-drug interaction and pharmacokinetic study between fruit extract of Capsicum frutescens L. and glimepiride in diabetic rats	SCI
51	Dr.M.A.Raja	Latin American Jornal Pharm.	Formulation and ex-vivo evaluation of Naproxen emulgel by skin irritation test	Scopus
52	S.Mohan, Dr.V.Jayaraj	International Journal of Computer Trends and Technology	Classification of Retinal Images Using Convolutional Neural Network	UGC
53	Dr.V.Jayaraj, S.Mohan, T. Prabu	International Research Journal Of Engineering and Technology	Image Denoising using Modified Fuzzy C means and Fractional Convolutional Method	UGC
54	Mrs.K.Sivakami	ICTACT Journal on Microelectronics	VLSI usage of productive MBIST architecture utilizing RLFSR	UGC
55	Dr.R.Anand	International journal of scientific & technology research	Design and Analysis of Indoor Multiband Antenna in Signal Boosting of Mobile Communication Systems	Scopus
56	B.Nandhini	International Journal of Engineering Trends and Technology	Design and Development of an Accident Detection Technique based on the Incorporation of the Wifi Direct	Scopus
57	Dr.R.Anand	International Journal of Electrical Engineering & Education	Harmonics control of three phase voltage source inverter with random carriers and modified reference	Scopus
58	Dr.R.Anand	Test Engineering and Management	HPSOMPC Control of Bidirectional Series Resonant DC/DC Converter	Scopus
59	B.Nandhini	International Research Journal of Engineering and Technology	Implementation of WSN for the water quality Assessment in a Real Time Application	Scopus
60	S.DaisonStallon	International transactions on Electrical Energy systems-Wiley Publications	Improving the performance of grid-connected doubly fed induction generator by fault identification and diagnosis: A kernel PCA-ESMO technique	SCI
61	Mr.S.Arunkumar	Computer Communications	Artificial Bee colony optimization based energy-efficient wireless network interface selection for industrial mobile devices	SCI
62	Mr.S.Arunkumar	Wireless Personal Communications	An integrated piezoelectric sensor based energy efficient transmission using base-station controlled dynamic clustering protocol	SCI
63	Dr. KR. Senthilkumar	Library Philosophy and Practice (LPP)	User pattern of Libraries by students of Government colleges in Tamilnadu : A Study	Scopus
64	Dr. KR. Senthilkumar	Library Philosophy and Practice (LPP)	Comparison of E- Resources with their Usage Statistics in Southern Region	Scopus
65	Dr. P. T. VijayaRajakumar	AEGAEUM	Impact of information technology implementation on productivity in SMEs in Tamilnadu	Scopus
66	Dr. P. T. VijayaRajakumar	SMART Journal of Business Management Studies	Impact of Factors of Motivation on Employee Motivation in Higher Education Institutions if Coimbatore, India	Web of Science

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67	Dr. P. T. VijayaRajakumar	INFOKARA Research	Implementation of People Capability Maturity Model - Role in Organizational Improvement in Software Companies	Scopus
68	Dr. P. T. VijayaRajakumar	SAMBODHI	The Role of Information Technology implementation on Business Competitiveness in SMES	UGC
69	Dr.M.Santhosh	International Journal of Vehicle Structures & Systems	RSM based Modeling and Investigation of Emission Characteristics on Cotton Seed Oil Biodiesel	Scopus
70	Dr.M.Santhosh	Environmental Science and Pollution Research	Modelling and evaluation of combustion emission characteristics of COME biodiesel using RSM and ANN—a lead for pollution reduction	SCI
71	Dr.V.M.M.Thilak	International Journal of Productivity and Quality Management	Leagile manufacturing paradigm in the production of jet pump-an implementation experience	Scopus
72	Dr.V.M.M.Thilak	Tierärztliche Praxis	World class manufacturing through 'Total Productive Maintenance' via ISO 9001:2015 standard	Scopus
73	Dr.S.Jeevanantham	International Journal of Nano manufacturing	Influence of boron nitride nano additives in cutting fluid for improving surface roughness with MRR	Scopus
74	Dr.K.Anganan	Materials today proceeding	An experimental study and analysis of various cylindrical pin diameters in friction stir welded AA7075-T6 and A384.0-T6 aluminium alloys of butt joint	Scopus
75	Dr.S.Shalini Packiam Kamala	Materials Today: Proceedings	Parametric analysis and performance of laser cutting on strenx steel	Scopus
76	Dr.S.Shalini Packiam Kamala	Materials Today: Proceedings	Experimental analysis on effect of infrared light source for moisture content test of silica sand	Scopus
77	Dr. N. Sathiyapriya	Molecular crystals and Liquid crystals	Importance of cesium carbonate additives in the nucleation and growth of α - and γ -glycine single crystals	SCI
78	Dr. N. Sathiyapriya	Matrials research Express	Solution growth of γ -glycine from cadmium sulphate as solvent for frequency doubling applications	SCI
79	Dr. P. Periasamy	Inorganic Chemistry Commuincations	Electronic, NLO, computational and interaction analyses of DAPVMPFTB crystals for electro-optics and electronic industrial utilities	SCI
80	Dr. P. Periasamy	Inorganic Chemistry Communications	Microwave-Assisted hybridised WO/VO rod shape nanocomposites forelectrochemical supercapacitor applications	SCI
81	Dr.S.Shalini Packiam Kamala, Dr. P. Periasamy, Dr. N. Sathiyapriya	Journal of Sol-Gel Science and Technology	Cu ²⁺ substituted Cr ₂ O ₃ nanostructures prepared by microwave-assisted method: an investigation of its structural, morphological, optical, and dielectric properties	SCI
82	Dr. P. Periasamy	Rasayan J. Chem.,	synthesis and characterization of feo nanoparticles by hydrothermal method	Scopus
83	Dr. P. Periasamy	J Mater Sci: Mater Electron	Structural and electrochemical investigation of novel hybridized MnO ₂ /V ₂ O ₅ nanocomposites prepared by one-step microwave-assisted method for electrochemical supercapacitor application	SCI


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84	Dr. P. Periasamy	Brazilian Journal of Physics	Growth and XRD, Elemental, Mechanical, Dielectric, Optical and Photoconductivity, and Surface Morphological Characterizations of 2-[4-(Trifluoromethyl) phenyl]-1H-benzimidazole (TFMPHB) Crystals for Electronic, Mechanical Applications	SCI
85	Dr. P. Periasamy	Materials Today: Proceedings	Enhanced properties of Zn ²⁺ substituted Cr ₂ O ₃ nanoparticles in escalating the distillate yield of acrylic pyramid solar still	Scopus
86	Dr. P. Periasamy	Applied Physics A	Structural, thermal, optical and dielectric studies of V ₂ O ₅ @WO ₃ nanocomposites prepared by microwave-assisted hydrothermal method	SCI
87	Mr.K.Ramesh	Neutrosophic Sets and Systems	Neutrosophic Generalized Pre Regular Closed Sets	Scopus
88	Mr.K.Ramesh	Neutrosophic Sets and Systems	Ngpr Homeomorphism in Neutrosophic Topological Spaces	Scopus
89	Mr.K.Ramesh	Strad Research	Neutrosophic gpr Continuity and Neutrosophic Contra gpr Continuity in Neutrosophic Topological Spaces	Web of Science
90	Dr.R.Deepa	International journal of Multidisciplinary Educational Research	A study on Rural and urban learners in learning English Language and their difficulties in sentence formation in English	Peer-viewed
91	Ms.Susmi Mariam Varghese	Roots International Journal of Multidisciplinary Researches	literary depictions and artistic adaptations of rani lakshmibai of jhansi	UGC care list


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IPR

S.No	Inventor name	Year	Invention title	Published in India / other country
1	Dr. C.R.Raajeshkrishna	2020	Development of Basalt fiber reinforced nylon composites for commercial applications	India
2	Dr. B.R. Senthil Kumar	2019	C Shaped Baffle plate Solar Air Heater for Enhancing Heat Transfer Rate	India
3	Dr.R.Ramasamy	2021	Design of Jigs and Fixtures	Indian
4	Dr N K Sakthivel Dr S Subasree	2021	Development of an Energy Efficient Data Centre Network Architecture for Cloud Applications	Indian
5	Ms.S. Priya	2021	A system and method for automatic attendance using smart chair application	Indian
6	Ms. S. Priya	2021	A system and method for person detection in aerial imagery using semantic segmentation	Australian
7	Mr.R.Senthilkumar	2021	A roadmap for building an sla management architecture for iot networks	Indian
8	Dr.V.Jayaraj	2020	Real Time Monitoring and Tracking of Motor Vehicles Using IOT	Indian
9	Dr.V.Jayaraj	2020	IOT Based Municipal Garbage Monitoring System for The Smart Cities	Indian
10	Dr.M.A.Raja	2021	A Smart Dustbin for disabled people	Indian
11	Dr.V.Jayaraj, Dr.M.A.Raja, Mr.N.Nagarajan, Ms.Jeba Paulin, Ms.S.M.Deepa, Ms.V.S.Vaisakhi, Ms.K.Sivakami, Mr.T.Prabhu, Mr.S.Mohan	2021	Object Detection Under the Car Chassis and Warning System using Image Processing Technique for the Safe Departure of a Journey	Indian
12	Dr.M.A.Raja	2020	Solar Powered Watering System for Managing Plants in The Balcony Garden	Indian


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13	Mr.K.Nagarajan	2020	IOT Enabled Calorie Counter Wristwatch	Indian
14	Mr.K.Nagarajan	2021	Biometric Wallet	Indian
15	Dr.R.Kannan, Mr.S.DaisonStallon	2021	Energy Efficient Cooling System cum Electricity Generation for Automobiles	Indian
16	S.DaisonStallon	2020	Handy Sanitizer Dispenser	Indian
17	Dr.R.Kannan, Dr.M.Mano Raja Paul	2021	IoT enabled Environmental Air Pollution Monitoring and Rerouting system using supervised learning AL	Indian
18	Dr. R. Anand	2021	Smart Energy Harvesting Through Rechargeable and Non Rechargeable Sources of Electricity Based On Wsn Application	Indian
19	Dr.R.Kannan, Dr.M.Mano Raja Paul	2020	A Wearble non-invasive hydration monitoring system using a microphone interfaced in shirt collar	Indian
20	Dr. S. Shalini Packiam kamala	2021	Accurate vibrational spectroscopic wavenumber determination system	India
21	Dr. S. Shalini Packiam kamala	2021	Functional Density Theory for conformational stability, molecular structure and vibrational spectra of 6-methyl-2-chromenone and 6 amino- 1-methylpurine	India
22	Ms.N. Sathiya Priya	2021	Design of photovoltaic effect in cadmium sulphide thin films	India
23	Dr.SP.Arunkumar	2020	INSTU-Analysis of Each Layer of 3D Printing	Indian
24	Dr.SP.Arunkumar, Dr.M.Santhosh	2020	Method of Extracting Smilax zeylanicalinn Fiber	Indian
25	Dr.SP.Arunkumar	2021	Smilax zeylanicalinn fiber reinforced polymer composite manufacturing	Indian

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