

NAAC DOCUMENTS



J.K.K NATRAJA COLLEGE OF ENGINEERING AND TECHNOLOGY

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Komarapalayam - 638 183, Namakkal Dt., Tamil Nadu.

(Approved by AICTE - New Delhi and Affiliated to Anna University - Chennai)

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CRITERIA 3- RESEARCH, INNOVATIONS AND EXTENSION

KEY INDICATOR 3.1- RESOURCE MOBILIZATION FOR RESEARCH

Submitted by
IQAC

Internal quality assurance cell

J.K.K NATRAJA COLLEGE OF ENGINEERING AND TECHNOLOGY

CRITERION 3

**RESEARCH, INNOVATIONS AND
EXTENSION**

110

Key Indicator 3.1- Resource Mobilization for Research

3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)

Supporting Document

Note: The supporting documents for this metric exceed the upload limit of 5Mb. Hence the documents are made available in HEI website and links for the metric is given below.

METRIC	PARAMETER
3.1.1	<i>Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)</i>

2018-2019

S. No	Name of the research project/ endowment	Name of the Principal Investigator/Co- investigator	Department of Principal Investigator	Amount Sanctioned	Supporting Document	
1.	Plasticraft: Artisanal Techniques for Creating Eco-Friendly Products from Recycled Plastic Waste	N. Ramasamy/ R. Loganathan	Mechanical Engineering	28759	View	
2.	A Comprehensive Overview of Sand Blasting Operations: Techniques, Applications, and Safety Considerations	M. Pradeep / R. Mugilvendan	Mechanical Engineering	27347		
3.	Development and	G.M. Sathyaseelan /	Information	25870		

	Implementation of an E-Learning-Based Student Performance Analysis System	M.Eswaran	Technology		
4.	A Novel Approach to Enhancing Sanitation and Pollution Control: Innovative Strategies and Solutions	V. Senthil / J. Gowrishankar	Electronics and Communication Engineering	29750	

2019-2020

S. No	Name of the research project/endowment	Name of the principal investigator/co-investigator	Department of principal investigator	Amount sanctioned	Supporting Document
1.	Designing a Cost-Effective Composting Solution for Domestic Waste Management	S. Ranjithkumar / K. Dhamodharan	Mechanical Engineering	32075	
2.	Fabrication of an Automated Headlamp System with Light Dimming and Dipping Control Mechanisms	P. Thirunavukkarasu / R. Jagadish	Mechanical Engineering	31575	
3.	Development of a Power Generation System Utilizing Exhaust Gas Energy	P. Thirunavukkarasu / K. Mohanraj	Mechanical Engineering	39349	
4.	Design and Implementation of an Electricity Generation System Integrated into Desk Chairs	A. Thangathambi /N. Raghul	Mechanical Engineering	29075	View
5.	Fabrication of a Solar-Powered Multipurpose Seeding Machine: Design and Application	A. Nagarajan / P. Thavasi	Mechanical Engineering	36845	
6.	Addressing Security and Privacy Challenges in G-Cloud Healthcare Services: An Efficient Approach	G.M.sathyaseelan / M.Prema	Information Technology	34535	

7.	Design and Implementation of an Intelligent Traffic Control System for Ambulances Utilizing RF Signal Technology	G.M.Sathyaseelan / E.Kavitha	Information Technology	32295	
8.	Development of a Location-Aware Tracking System for Relief and Rescue Operations Using Mobile Technology	M.Pavithra / K.Indhumathi	Information Technology	30140	
9.	Real-Time Fault Detection, Location Tracking, and Maintenance Automation for Street Lighting Systems	K. Aruljothi / P. Saranya	Electrical and Electronics Engineering	31515	
10.	Smart Urban Lighting Infrastructure with Integrated Fault Detection and Automated Maintenance System	V. Karthi / K. Arun Prakash	Electronics and Communication Engineering	35580	

2020-2021

S. No	Name of the research project/ endowment	Name of the principal investigator/co-investigator	Department of principal investigator	Amount sanctioned	Supporting Document
1.	Design and Fabrication of an Advanced Air Purification System	S. Ranjithkumar / C. Gowtham	Mechanical Engineering	22390	
2.	Development and Implementation of a Comprehensive Hydraulic Trainer Bench	P. Thirunavukkarasu / S. Jegatheesh	Mechanical Engineering	25780	View
3.	Design and Fabrication of a	N. Ramasamy / K. Iswarya	Mechanical Engineering	27653	

	Pneumatic Double-Sided Bumper System				
4.	Development of an Oil and Water Separator for Use in Service Stations	V. Gobinath / M. Manickam	Mechanical Engineering	22890	
5.	Design and Implementation of an Automatic Hand Brake Release Mechanism	A. Thangathambi / M. Raguman	Mechanical Engineering	23570	
6.	Optimization of Blood Donor Location Tracking Through Mobile Application Technology	P.Rathika / G.M.Sathyaseelan	Information Technology	21785	
7.	An IoT-Based Framework for Heart Disease Prediction Utilizing Artificial Neural Network Algorithms	G.M.Sathyaseelan / G.Mohana	Information Technology	22670	
8.	Enhancing Security and Optimizing Resource Usage in Mobile Cloud Computing: A Deep Learning Approach	N.Yuvaraj / D.Priyadharshini	Information Technology	26890	
9.	Body Temperature Measurement and Automated Attendance System Using IoT Sensors	G.M.Sathyaseelan / P.Sathya	Information Technology	25680	
10.	Development of an Android Application for College Canteen Management System	G.M.Sathyaseelan / N.Prabakaran	Information Technology	22570	
11.	Design and Implementation of a Multi-Layered Framework for Distributed Simulations in Cloud	P.Rathika / M.Thilagavathi	Information Technology	25720	

	Environments				
12.	Investigating E-Commerce Product Experiences Through Fine-Grained Sentiment Analysis	G.M.Sathyaseelan / G.Gopi Kannan	Information Technology	27450	
13.	Enhancing Power Quality in Distribution Systems Using Dynamic Voltage Restorers for Various Load Conditions	T. Monika / S. Keerthana	Electrical and Electronics Engineering	26430	
14.	IoT-Based Entrance System for Indoor Safety Monitoring During COVID-19	V. Senthil / E. Velumani	Electronics and Communication Engineering	26420	
15.	Emosense: AI-Driven Emotional Intelligence for Social Media Reputation Management	T. Nandhini / R. Radha	Computer Science and Engineering	21980	

2021-2022

S. No	Name of the Research Project/ Endowment	Name of the Principal Investigator/Co-Investigator	Department of Principal Investigator	Amount Sanctioned	Supporting Document
1.	Investigating and Analyzing Casting Defects for Quality and Productivity Improvement in Foundries Using Quality Control Tools	V. Gopinath / T. Bhuvaneshwaran	Mechanical Engineering	34173	View
2.	Eco-Friendly Paper Manufacturing Using Fruit Peels: A Sustainable Approach	R. Silambarasan / P. Surendar	Mechanical Engineering	26890	
3.	Design and	S. Ranjithkumar / S.	Mechanical	24650	

	Fabrication of an Efficient Onion Harvesting Machine	Pushpa Ganapathi	Engineering		
4.	Innovative Design and Fabrication of a High-Efficiency Coconut Dehusking Machine	A. Thangathambi / A. Srimaan	Mechanical Engineering	27920	
5.	Development of an Android-Based Vehicle Monitoring and On-Road Breakdown Assistance System	N.Yuvaraj / S.Abinaya	Information Technology	25670	
6.	A Significant Learning Model for Detecting Coronavirus Disease from CT Images Using CNN Algorithms	G.M.Sathyaseelan / S.Dinesh	Information Technology	33063	
7.	Effective Cache Congestion Management Mechanism for IoT-Enabled Wireless Mesh Networks	G.M.Sathyaseelan / S.Deepika	Information Technology	24780	
8.	Enhancing Software Vulnerability Detection and Classification Using Deep Neural Networks on Big Data	N.Yuvaraj / R.Kowshik	Information Technology	24650	
9.	QR Code-Based Application for Efficient Traffic Fine Payment	P.Rathika / S.Krishnapriya	Information Technology	33173	
10.	Advanced Human	C. Kalaivani / V.	Electrical and	26730	

	Target Detection in Flood Situations Using Drones and Raspberry Pi Pico	Devikarunambiga	Electronics Engineering		
11.	Development of a Poultry Automation System Utilizing RP2040 Microcontroller	T.Monika / P.Saranya	Electrical and Electronics Engineering	35183	
12.	Implementation of an Intelligent Toll Gate System for Efficient Traffic Management	E. Velumani / M. Nirmal Prithivraj	Electronics and Communication Engineering	25980	
13.	Development of an Intelligent Billing System for Enhanced Transaction Efficiency	K. Mekala / Dhanalakshmi	Electronics and Communication Engineering	24600	
14.	Advanced Monitoring System for Deep-Sea Fishing Operations	T. Nandhini / S. Praveenkumar	Computer Science and Engineering	25870	

2022-2023

S. No	Name Of the Research Project/ Endowment	Name of the Principal Investigator/Co-Investigator	Department of Principal Investigator	Amount Sanctioned	Supporting Document
1.	Design and Fabrication of an Automatic Side Stand Retrieval Mechanism	E. Mohankumar / S. Gopi	Mechanical Engineering	27920	View
2.	Development of a Versatile Coconut Dehusking Machine	S. Ranjithkumar / S. Muralitharan	Mechanical Engineering	22540	
3.	Design and Fabrication of an Emergency Relief System for Brake	E. Mohankumar / V. Saran	Mechanical Engineering	27548	

	Failure				
4.	Performance Analysis of a CI Engine Using Ethanol and Punnai Oil as Fuels	A. Nagarajan / M. Bibin	Mechanical Engineering	23850	
5.	Enhancements to the Brake Shoe Mechanism at the Tailstock of a BFW Machine	S. Ranjithkumar / S. Pavithran	Mechanical Engineering	28990	
6.	Investigation of Mechanical Properties and Fracture Behavior of Drilled Surfaces in Non-Structural Jute Fiber Composites	E. Mohankumar / G. Maniyan	Mechanical Engineering	26980	
7.	Predicting Crime Types and Occurrences Using Machine Learning Techniques	G.M.Sathyaseelan / K.Kabilan	Information Technology	21550	
8.	Analyzing and Predicting Disease Treatment Outcomes Using Deep Learning and Machine Learning Techniques	R.Karthika / T.Jayashree	Information Technology	22570	
9.	A Novel Feature Matching and Ranked Search Mechanism for Encrypted Cloud Data	S.Murgashankar / E.Jeeva	Information Technology	26590	
10.	Detection of Brain Tumors from MRI Images Using Naive Classifier Algorithm	G.M.Sathyaseelan / S.Murgashankar	Information Technology	25670	
11.	Model-Based Approach for Classifying Patient Health Records	G.M.Sathyaseelan / V. Gobika	Information Technology	21436	
12.	Development of an Autonomous Low-Power PV Panel	K.Aruljothi / S.Dayana	Electrical and Electronics Engineering	27890	

	Cleaning Robot				
13.	Design and Implementation of an Automatic Sewage Cleaning Robot	K. Mekala / M. Ramya	Electronics and Communication Engineering	20250	
14.	Embedded Edge Computing for Real-Time Analytics of Smart Meter Data	S. Rajkumar / S. Tamilselvi	Electronics and Communication Engineering	21569	
15.	Design and Development of an Intelligent Maid Robot for Hotel Room Service	N. Ponnarasi / V. Senthil	Electronics and Communication Engineering	22653	
16.	Development of a Wheelchair Controlled by Head Movements	S. Tamilselvi / N. Ponnarasi	Electronics and Communication Engineering	25438	
17.	Development of a Multi-Controlled Wheelchair for Individuals with Disabilities	V.Senthil / E.Velumani	Electronics and Communication Engineering	23152	
18.	Embedded System-Based Automated Burner for Natural Ecosystem Sustainability	M. Nirmal Prithivraj /V. Senthil	Electronics and Communication Engineering	27120	
19.	Analysis of Intelligent Transport Systems Using Optical Vehicle-to-Vehicle Communication	N. Ponnarasi / M. Ramya	Electronics and Communication Engineering	21623	
20.	AI-Powered Chatbot Intervention for Assisting Individuals with Depression	T. Nandhini / T. Lakshmi	Computer Science and Engineering	20235	