VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI
INSTITUTE OF ENGINEERING AND TECHNOLOGY
An Autonomous, ISO 9001:2015 & QS I-Gauge Diamond Rated Institute, Accredited by NAAC with 'A++' Grade.
NBA Accreditation for B.Tech. CE, EEE, ME, ECE, CSE, EIE,IT,AME, M.Tech. STRE, PE, AMS, SWE Programmes
Approved by AICTE, New Delhi, Affiliated to JNTUH, NIRF (2023) Rank band:101-150 in Engineering Category
College with Potential for Excellence by UGC, JNTUH-Recognized Research Centres:CE,EEE,ME,ECE,CSE Vignana Jyothi
Nagar, Pragathi Nagar, Nizampet (S.O.), Hyderabad – 500 090, TS, India.
Telephone No: 040-2304 2758/59/60, Fax: 040-23042761
E-mail: postbox@vnrvjiet.ac.in, Website: www.vnrvjiet.ac.in

COMPLETED FUNDED RESEARCH PROJECTS

Department of Science & Technology (DST)		
Sl No	**Project Title**	**Amount**
1.	Designing of Electro Coagulation method for wastewater treatment	17.51
2.	Development of an Indigenous Low-Cost /Light Weight Deflectometer for Structural Evaluation of Pavement	14.10
3.	Development of Low Cost-Efficient Charging Station for Electric Vehicle (EV) Charging Applications	8.77
4.	Inorganic-Organic Hybrids based on Kegging-type Polyoxometalate-Schiff Base metal complexes: Synthesis, Characterization and Proton Conducting studies.	8.25
5.	Sophisticated Flexible Supercapacitors for High Energy Storage application based on Nanomaterials	44.07
6.	Design and Development of Knowledge based expert system to assist farmers for maintenance of Agricultural field using aerial data acquisition	4.00
Total (In Rs. Lakhs)		**96.7**

All India Council for Technical Education (AICTE)		
Sl No	**Project Title**	**Amount**
1.	Theoretical and Experimental Investigation through Porus media	7.00
2.	Performance Appraisal of polymer modified bitumen	11.25
3.	Image Fusion Using Fuzzy and Neuro Fuzzy Logic	3.50
4.	GIS & GPS based vehicle tracking system & accident analysis.	12.25
5.	Multi scale Mechanical Methods for Characterization of Bone and Biomaterials.	17.00
6.	Experimental Study of influences of pulsed current and non-pulsed current Gas Tungsten Arc Welding on 6082 Aluminium Alloy Weldments	15.7
7.	Design and Development of System for ECG waveform characterization and processing	8.25
8.	Development of Low Power and High Speed FPGA based IP Core Mini Ace Architecture Compatible to Data Device Corporation	14.35
9.	Development of a tool for predicting the mechanical properties of steel using Data Science Techniques	4.27
10.	Experimental Investigation on Role of Hybrid Tool Pin Profile on Microstructure and Mechanical Properties of Friction Stir Welded dissimilar AA6082- AA5083 Aluminium Alloy	7.84
Total (In Rs. Lakhs)		**101.41**

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University Grants Commission (UGC) Minor		
Sl No	**Project Title**	**Amount**
1.	Optimization of controllable turning parameters for high speed dry machining of super alloys by measurement of tool wear	3.50
2.	Laboratory Investigation of Recycled Asphalt Pavements (RAP) In Predicting Its Influence on Modified Asphalt Mixture for Evaluation of Rutting Characteristics	4.95
3.	Identity Based Short Signature Without Using Random Oracles	3.20
4.	Implementation of biomedical image processing on embedded hardware.	3.00
5.	Design And Implementation of Algorithm for Real Time Patient Monitoring in Ambulance While Transit.	4.45
6.	Development and Validation for Non-Technical Losses (NTL's) detection of Electricity Theft Using Genetic hybrid SVM Approach	2.50
7.	Development of a High level Frame work that works on flash TLF 2.0 specification for animated text display in e-Learning	3.30
8.	Development of optimization techniques for protective devices and distributed generators allocation to optimize reality and to reduce losses in electrical power distribution system	4.90
9.	Hardware Implementation of FPGA based CO for Multilevel Inverter	2.37
10.	Design & Development of Maximum Power TR Link & Static Converter for Smart Micro Application	2.55
11.	Development & Implementation of DSP B Algorithm for the Protection of Power TR.	2.50
12.	Using Mobile Technology to enable and FA is tributed learning for enhancing English Communication Skills for better employable UG students in Andhra Pradesh	1.72
13.	Development of and implementation of algorithm for real time automation System to assist paralyzed patients using eye blinking	2.77
14.	Prototyping of Wireless Network System For Agricultural Applications using ZIGBEE	2.87
15.	FPGA Implementation of Field oriented CO permanent magnet synchronous Motor	3.29
16.	Development and Implementation of Automized System for the Detection of Sleep Disorders Using EEG Analysis	4.40
17.	A Data Mining Approach for the Efficient Detection of Brain Tumor Disease	0.65
18.	Design of Hybrid Data Mining Techniques for Effective Retrieval of Information from Cloud based Applications	0.80
19.	Cultivation of Micro Algae and Characterization of its Suitability as an alternate	3.30
20.	Development of Analytical Methods for Rotary Flows Generated in Spherical Geometry	1.95
21.	Synthesis, characterization and Potential Applications of Nano-Dithiocarbomate Complexes	1.35
Total (In Rs. Lakhs)		**60.32**

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Biotechnology Industry Research Assistance Council (BIRAC)		
Sl No	Project Title	Amount
1.	Cough & Wheeze analyzer for Respiratory Digital Health Services	15.00
2.	Digital Health Advisory System for Chronic Respiratory Diseases	45.60
3.	Self Learning Prosthetic hand based on voice commands	44.80
Total (In Rs. Lakhs)		**105.4**

Defense R&D Organization (DRDO)		
Sl No	**Project Title**	**Amount**
1.	Comparative study of "Weld characteristics of IS:65032A aluminum alloy by two processes friction stir welding (FSW) and Gas Tungsten Arc Welding (GTAW)"	9.91
2.	Feasibility Study of Weapon Locking & Tracking System	9.90
3.	Evaluation of machinability characteristics of TI-6AI-4V titanium alloy with conventional and eco-friendly cutting fluids	9.31
4.	Development of a tool for the management of diabetes mellitus	9.45
5.	Development of a machine learning based algorithm for computer aided-diagnosis malaria	7.75
6.	Development of procedures for computation of Titanium-vanadium binary alloy system using cluster variation methods	9.32
7.	Design and Development of Prototype for Secure Weapon Shooting Information System (SWSIS)	9.96
8.	Identification of actuator dynamics and development of electronic circuits for smart materials actuated insect-scale legged robots	9.74
9.	Process Optimization of IPMCS for optimal functionality and in air operability.	7.19
Total (In Rs. Lakhs)		**82.53**

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Jawaharlal Nehru Technological University Hyderabad (JNTU H – TEQIP)		
Sl No	**Project Title**	**Amount**
1.	Synthesis and Characterization of Bi 2 O 3 -B 2 O 3 -MnO Glasses Doped with Zirconium Oxide Nanoparticles Suitable for Magnetic Sensors and Luminescent Materials	2.50
2.	Studies on Mechanical and Durability characteristics of Low Carbon Limestone Calcined Clay Cement	3.00
3.	Studies on high performance self compacting concretes with ternary blended cements containing Graphene oxide and Nano-Titanium oxide	3.00
4.	Assessment Warm Mix Asphalt (WMA) with partial replacement of recycled aggregate and inclusion of Nano material	2.99
5.	Instrumentation for Determination of Thermal Conductivity for Geo-Materials (Soil-Rock-Concrete)	3.00
6.	Detection of Fraudulent water pipes under the ground using Ground Penetrating Radar(GPR) and 3-D Image Processing Techniques	2.90
7.	Identification of sickle cell Anemia using Deep Neural Network.	3.00
8.	Modelling distributed databases using ontology	3.00
9.	Machine Learning Approach for Plant Disease Identification using Leaf Images	2.95
10.	Automatic Diagnostic Model for malaria parasites Detection from microscopic Images.	2.98
11.	To analyze the finger tip that aids to diagnose cardiovascular diseases using Photoplethysmography (PPG) technique	2.94
12.	Characterization of Plydrop phenomenon in FRP composites application in wind turbine blades.	2.90
13.	Solar desalination for nano and micro hierarchical structures	2.85
14.	Deep Learning based Smart Assistant for Blind people	2.70
15.	Real Time Implementation of Advanced Control Algorithm(s) on a Laboratory Scale Plant.	2.85
16.	Affect of flank wear on surface roughness in turning of Nickel A286 alloy	3.00
17.	Experimental investigation of the spray characteristics of Nano particles blended water-diesel/biodiesel emulsion fuels	2.99
Total (In Rs. Lakhs)		**49.55**

Ministry of Micro, small & Medium Enterprises (MSME)		
Sl No	**Project Title**	**Amount**
1.	Semi-Automatic Prosthetic Hand	1.91
Total (In Rs. Lakhs)		**1.91**

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Information Technology Research Academy (ITRA)		
Sl No	**Project Title**	**Amount**
1.	Development of effective Wireless sensor Network System for Water quality and quantity monitoring (AquaSense)	30.18
2.	Virtual Assistant for Mobile Devices using Voice and Gesture Technologies	18.14
Total (In Rs. Lakhs)		**48.32**

Industry		
Sl No	**Project Title**	**Amount**
1.	Driving Simulator for Indian Environment	75.98
2.	Automated Commando Training System	8.52
3.	Sensory Measurement Unit & Driver Drill Cabin	9.00
4.	Campus Management Solution Modules	8.75
5.	Mobile Image Position and Performance Acquisition System	15.02
6.	Intelligent and Intuitive Signaling System for On-road Driver assistance	6.00
7.	FM Based Switch for Street Light Control	6.00
8.	Driver safety index using integrated computing system	7.00
9.	Design and Development of 1553IP Core	4.24
10.	"ROI Booster"	7.80
Total (In Rs. Lakhs)		**148.31**