



## GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING

(Autonomous)

Approved by AICTE & Affiliated to Andhra University, Visakhapatnam from 2022-23

(Affiliated to JNTUK, Kakinada upto 2021-22)

Accredited twice by NAAC with 'A' Grade with a CGPA of 3.47/4.00

Madhurawada, Visakhapatnam – 530 048

### R&D Projects funded by external agencies worth **Rs. 1355.51 lakhs**

S.No.	Year	Total No. of Projects	Amount
1	2024	3	60.84
2	2023	2	21.00
3	2022	5	47.85
4	2021	1	0.93
5	2020	3	36.16
6	2019	15	220.00
7	2018	2	24.73
8	2017	9	100.79
9	2016	3	59.00
10	2015	2	14.38
11	2014	4	105.24
12	2013	8	79.20
13	2012	9	222.20
14	2011	4	245.07
15	2010	1	15.00
16	2009	4	29.92
17	2007	4	35.00
18	2006	4	33.20
19	2004	1	5.00
TOTAL			1355.51

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2024</b>					
1.	Dr. Birendra Biswal	A novel hardware embedded multivariate feature enabled health monitoring system for early diagnosis of Glaucoma	ECE	DST-SERB	50.49
2.	Dr. Birendra Biswal	The Third Five Day National Workshop on Medical Image Analysis using Artificial	ECE	DST-SERB	2.00
3.	Dr. Birendra Biswal	Intelligence (MIAAI 2024)	ECE	CSIR	0.25
4.	Ms. G.V. Hindumathi & Ms. P. Sravya	Unmasking the Hidden Objects	CSE	MSME	8.10

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2023</b>					
1.	Gottapu Prathyusha Dukka Alekhya Goru Sathwika Boddepalli Sampath Mani Kumar Palapala Naga Sai Sujay Kumar Under the guidance of Prof. Dr. CVK Bhanu, Dept. of EEE	Predictive Irrigation for Sustainable Agriculture using Maching Learning	EEE	IITB	6.00
2.	Dr. Vanamali Dharma Rao, GVP Institute for Health Care and Medical Technology	Virtual Reality Based Games for Stroke Rehabilitation at Home	GVPCE (MSME BI)	MSME	15.00

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2022</b>					
1.	B. Sreenivasulu	Nonlinear & Evolutionary Optimization Techniques in Engineering	Chemical	AICTE-ISTE	<b>0.93</b>
2.	Dr. G. Madhuri Dr. L. Venkat (Co-PI)	Material characterization and flaw detection using Microwave Non-Destructive Techniques for concrete	Civil	AICTE	<b>22.32</b>
3.	Dr. Chandra Sekhar Patro	A Study of E-Business Applications in Micro and Small Enterprises (MSEs) with reference to Food, Agro and Marine Products in Andhra Pradesh	Mgt. Studies	Indian Council of Social Science Research (ICSSR)	<b>3.90</b>
4.	GVP AI CLUB	Scheme for Promoting Interests, Creativity & Ethics among students	CSE	AICTE	<b>1.00</b>
5.	Shaik Sameer Ahamad Sai Harshita Kandrika Adithya Singupati Malla Monisha	Automation of Wheel Chair	CSE	IITB	<b>4.50</b>
6.	Dr. Ilahi Shaik, Assistant Professor, Gayatri Vidya Parishad College for Degree and PG Courses (A)	Marine Macro algae - a liquid agro bio fertilizer Plant for commercialization	GVPCE (MSME BI)	MSME	<b>12.00</b>
7.	Dr. P.V. Vinay, Professor, Gayatri Vidya Parishad College for Degree and PG Courses (A)	Low Cost Manual Tuber Vegetable Product Cleaning Machine	GVPCE (MSME BI)	MSME	<b>3.20</b>

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2021</b>					
1.	Dr. Puja Dash	IoT Interfaced Smart Grid Technology	EEE	AICTE	<b>0.93</b>

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2020</b>					
1.	Dr. Krishna Kishore Mugada	Processing and characterization of hybrid non-equilibrium composites fabricated by Friction Stir Processing (FSP) – (Indo-Bulgaria Joint Project)	Mech.	DST, Ministry of Science & Technology	<b>11.82</b>
2.	Dr. K.B. Madhuri	Modernization of Data Warehousing and Data Mining Lab using Graphical Processing Units (GPUs). (MODROBS)	IT	AICTE	<b>10.03</b>
3.	Dr Ramakrishna Shinagam	Development of Experimental modal analysis based artificial intelligence method for structural health analysis and estimation of remaining useful life of composite structures (RPS)	Mech.	AICTE	<b>14.31</b>

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2019</b>					
1.	Dr. Birendra Biswal	Machine Intelligence in smart Grid& Communication (National Workshop)	ECE	CSIR	0.50
2.	Prof. Sastry V. Vedula	Switched Reluctance Motor (SRM) Development for EV Application	EEE	HBL Power Systems Ltd, Hyd.	56.00
3.	Dr. Mohan Jagadeesh Kumar	Design Manufacturing and Testing of a Solar Based Jaggery Making Unit (IRPS)	Mech.	GVPCE(A) Inhouse	1.15
4.	Dr. M. Krishna Kishore	Design and Development of Portable static shoulder with adjustable tool fixture and study the interface microstructure during friction stir welding of dissimilar Al – Ti Alloys (IRPS)	Mech.	GVPCE (A) Inhouse	1.19
5.	Dr. A.B. Koteswara Rao	Modernization of Metrology Lab to enhance Quality Studies and promote Industrial Consultancy (MODROBS, AICTE)	Mech.	AICTE	17.53
6.	Dr. K. Narasimha Rao	Recent Trends in Power Quality Improvement Techniques in Grid Connected DG systems (STTP)	EEE	AICTE	3.29
7.	Dr. Mohan Jagadeesh Kumar Mandapati	Advanced CFD Simulation of Thermal Systems (FDP)	Mech.	AICTE	4.18
8.	Prof. VSN Rao Tatavarti	Indigenous Photonic System for Real Time Remote Monitoring of Air Quality	Civil	DST	63.45
9.	Dr. Rao Pulugurtha	Skill and Personality Development Programme for SC/ST Students (SPDP)	Mgt.	AICTE	18.32
10.	Dr. R. Praveena	Emerging Trends in Nano-Materials and their Engineering Applications (Seminar / Symposia Scheme)	Physics	SERB	1.00
11.	Dr. GVE Satish Kumar	Direct Torque Controlled Induction Motor Drive for Hybrid Electric Vehicles with Space Vector Modulated Sliding Mode Controller to Reduce Torque Ripple (RPS)	EEE	AICTE	9.00

## 2019 contd..

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
12	Dr. Pusapati Sarada Varma under the mentorship of Dr. J. Vasundhara Devi	Exploring Numerical techniques for fractional derivatives defined from first principles (WOS – A Women Scientist Scheme)	Maths	DST, Ministry of Science & Tech.	28.39
13	Dr. B. Srinivas	Computational Fluid Flow and Heat Transfer (STTP)	Chemical	AICTE	3.00
14.	Dr. A. B. Koteswara Rao	Recent Advances in Materials & Manufacturing (STTP)	Mech.	AICTE	3.00
15.	Dr. B. Govinda Rao	Influence of quaternary alloying addition on shape memory properties and tribological behavior of Cu-Al-Mn-Ag shape memory alloys. (MODROBS)	Mech.	AICTE	10.00
<b>TOTAL</b>					<b>220.00</b>
<b>2018</b>					
1.	Dr. C.V. K. Bhanu	Solar PV System – Design and Performance Evaluation (Induction / Refresher Programme)	EEE	AICTE - ISTE	3.00
2.	Dr. Birendra Biswal	Rural Health Care Improvement for Early Detection of NVD & NVE in Diabetic Retinopathy (Core Research Grant)	ECE	SERB	21.73
<b>TOTAL</b>					<b>24.73</b>
<b>2017</b>					
1.	Dr. Vasundharadevi J Dr.S.K. Sen Dr. RVG Ravikumar	A computational study of fractional differential equations (Research)	GVP-LIAS	DST, SERB	16.33
2.	Dr. A.B.Koteswara Rao	Serial and Parallel Robots – Analytics, Design and Applications (FDP)	Mech.	AICTE	6.85
3.	Dr. B.V. Ramana Murthy	Pedagogical Training on Outcome Based Education (FDP)	Mech.	AICTE	7.00
4.	Dr. M.P.K. Kishore	Trends in Data Analytics (Seminar Grant)	IT	AICTE	1.00
5.	Dr. VSN Rao Tatavarti	Structural Integrity Assessment using Indigenous Photonic System (RPS)	Civil	AICTE	23.52
6.	Dr. Amrita	Green and Sustainable machining of "hard to machine materials" using Graphene based Self Lubricating cutting tools and cutting fluids (Research)	Mech.	DST, SERB	25.56
7.	Dr. P. Krishna Subba Rao	Assessment of Neonatal Seizure Disorder using Scanning Electron Microscope Technique (Minor Research)	CSE	UGC	1.80

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2017 Contd..</b>					
8.	Dr. M.V.S. Sairam	Pre-Compliance EMI/EMC measurements of Electrical & Electronic products (MODROBS)	ECE	AICTE	9.75
9.	Dr. Vasundharadevi.J.	Recent Advances in Mathematical Sciences & Applications (International Conference)	GVP-LIAS	DST/SERB, TCS, IFNA, NBHM, DAE	8.98
<b>TOTAL</b>					<b>100.79</b>
<b>2016</b>					
1.	Dr. S. Ramakrishna,	Experimental Evaluation of Quantitative Values of Frictional Coefficients (Between different pairs of materials commonly used in floating mass dampers) (Research)	Mech.	GATET	9.00
2.	Dr. A.B. Koteswara Rao	FIST Program-2016 – to strengthen teaching and research facilities in all science departments of the College (Research)	Mech.	DST, Min. of Science and Tech.	30.00
3.	Dr. Rao Tatavarti	Feasibility Studies on Photonic Systems for Environmental Monitoring (Research)	GVP- SIRC	CASTLE Advanced Technologies & Systems (CATS), Nashik	20.00
<b>TOTAL</b>					<b>59.00</b>
<b>2015</b>					
1	Dr. RaoTatavarti	Study of insitu wave, current, suspended sediment concentration near shore region of Ramakrishna Beach. (Research)	GVP-SIRC	Visakhapatnam Port Trust	8.50
2	Dr. B Govinda Rao	Investigates the effect of compression ratio, exhaust gas recirculation, air turbo charging, and injection timing on the performance and exhaust gas emissions of a diesel engine fuelled with biodiesel – An experimental study (RPS)	Mech.	AICTE	5.88
<b>TOTAL</b>					<b>14.38</b>
<b>2014</b>					
1	Dr. RaoTatavarti	Design and Development of a Photonic system for real time remote monitoring of wind and other air parameters (Research)	GVP-SIRC	CWET, MNRE, GoI	17.26
2	Dr.Sastry V. Vedula	A wind and solar hybrid power generation for generating 200 kW of Electrical energy (R&D)	EEE	MNRE, GoI	83.00
3	Ms. B. Jayalakshmi	Relevant subspace clustering technique for high dimensional data (Minor Research)	IT	UGC	2.54
4	Ms. M. Chandrajyotsna	Design of Agent based bi directional routing for asymmetric mobile adhoc networks (Minor Research)	IT	UGC	2.44
<b>TOTAL</b>					<b>105.24</b>

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2013</b>					
1	Ms. P V Rajeswari	Nano-structured and doped metal oxide thin films for optical and electronic applications (Minor Research)	Physics	UGC	1.94
2	Ms. M. Rama Rajeswari	Kinetic and mechanistic studies on the oxidation of amino acids in micellar systems (Minor Research)	Chemistry	UGC	4.00
3	Ms. K.V. Nagalakshmi	Synthesis of new Co(III), Ni(II) complexes and their substitution reactions in reverse micellar medium (Minor Research)	Chemistry	UGC	4.55
4	Dr. R. Praveena	Development of Ln <sup>3+</sup> -doped Lu <sub>3</sub> Sc <sub>2</sub> Ga <sub>3</sub> O <sub>12</sub> nano-garnets for light emitting device applications (Research)	Physics	DAE-BRNS, BARC	16.65
5	Dr. R. Praveena	Tunable surface plasma resonance on Ag doped dielectric thin film matrices (Research)	Physics	DST-SERB	18.45
6	Dr. Sumantha Kumar Tripathy	Synthesis of nano-particle Tin oxide thin films by So-gel method and comparative study of its characteristics with thin films prepared by thermal evaporation technique for application to gas sensor (Major Research Project)	Physics	UGC	10.13
7	Dr. K Narasimha Rao	Development of Power Systems	EEE	AICTE	16.63
8	Dr. B. Srinivas	Modernisation of Analysis of Industrial Pollutants Lab.	Chemical	AICTE	6.85
<b>TOTAL</b>					<b>79.20</b>
<b>2012</b>					
1	Dr. C V K Bhanu	Solar Alternative: Design of Solar Photovoltaic System/Invertor for Agriculture Operations	EEE	TFAS, USA through Prof.BSR & VR Foundation	3.56
2	Dr. Pilakamurty & Dr. ABKRao	Design and Development of special purpose CNC machine for 2-D contour machining and other application	Mech.	AICTE	12.00
3	Dr. RaoTatavarti	Coupling Sediment Transport Estimates from Numerical Modeling with Field Observations in Gulf Mannar	GVP-SIRC	NRB	49.39
4	Dr. RaoTatavarti	Feasibility of detection of underwater hydrodynamic turbulence using opto-electronic systems	GVP-SIRC	DRDO, Min. of Defence, Gol	9.95

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2012(contd..)</b>					
5	Dr. RaoTatavarti	Design and Development of Optical Air Data System for Advanced Combat Medium Range Aircraft	GVP-SIRC	ADA	103.92
6	Sri J V S Murthy	Production of Mesophase pitch suitable for carbon fibers	Chemical	AICTE	9.70
7	Dr. J.Vasundhara Devi	A Qualitative Study of Graph Differential Equations and Matrix Differential Equations	Maths	DAE, GoI	20.43
8	Prof. P Veerabhadra Rao	Mechanical Properties of No Aggregate Concrete (NAC)	Civil	Eco-Carbon (P) Ltd.	10.00
9	Prof. Dr. Rao Tatavarti	Design of Tank Facility to Study Underwater Turbulence	GVP-SIRC	DRDO (CARS)	3.25
				<b>TOTAL</b>	<b>222.20</b>
<b>2011</b>					
1	Dr. Aditya Mukherjee	Study of antifouling paint behavior due to loading and flow around ship hull	Chemical	DST (in collaboration with IMU)	31.66
2	Dr. RaoTatavarti	A study of the role of Neutrophic factors, polyunsaturated fatty acids and their metabolites in the prevention of radiation and chemical induced damage to DNA in vitro and in vivo and cancer	GVP-SIRC	DRDO	198.44
3	Dr.Pilaka Murty	Detailed studies on effect of ball milling grinding parameters on particle size of tungsten nano powder and develop an empirical model relating various parameters with final particle size	Mech.	DRDO	4.97
4	Dr. B. Govinda Rao	Modernization of Thermal Engineering	Mech.	AICTE	10.00
				<b>TOTAL</b>	<b>245.07</b>
<b>2010</b>					
1.	Dr. D.S. Murty	Development of Industry Lab For Real Time Industrial Applications	ECE	AICTE	15.00
				<b>TOTAL</b>	<b>15.00</b>

Sl.	Investigator(s)	Title of the Project	Dept.	Funding Agency / Industry	Grant Received (in lakhs)
<b>2009</b>					
1	Prof. P. Veerabhadra Rao	Evaluation of bond strength between rock surface and grout.	Civil	Hindustan Construction Co.	2.00
2	Dr. J. Vasundhara Devi	A Quality Study of set Differential Equations involving casual operators with memory	Maths	DST	9.82
3	Sri M. Ben Swarup	Development of Software Safety Model and Metrics for high-risk software-controlled Critical Systems used in Transportation sector	CSE	AICTE	5.10
4	Sri N. V. Brahmaji Rao	Modernization of Networking & Security Lab with Industry Relevant Cisco Devices	CSE	AICTE	13.00
<b>TOTAL</b>					<b>29.92</b>
<b>2007</b>					
1	Dr. N. Balasubrahmanyam	Modernization of Embedded Systems Lab.	ECE	AICTE	7.50
2	Dr. A. B. K. Rao	Development of Parallel Kinematics Based Machine Tool	Mech.	AICTE	9.00
3	Dr. D. S. Murthy	Development of New Algorithms for Improving the power efficiency through optimization of gate in VLSI	ECE	AICTE	10.00
4	Dr. A. B. K. Rao & Dr. P. Srinivasa Rao	Modernisation of CAD/CAM & Robotics Lab with Industry Relevant Mechatronics	Mech.	AICTE	8.50
<b>TOTAL</b>					<b>35.00</b>
<b>2006</b>					
1	Prof. P. V. Ravi Kumar	Modernization of The Process Control Laboratory	Chemical	AICTE	13.00
2	Prof. M. S. Rao	Application of Bootstrapping Techniques To Regression Problems-Analysis of Catalytic Rate Models	Chemical	AICTE	9.20
3	Dr. P. Srinivasa Rao & Dr. A. B. K. Rao	Improving weld bead characteristics in pulsed GMA welding using Automated Are Rotation Mechanism	Mech.	AICTE	10.00
4	Prof. P. Veerabhadra Rao	Optimum Design of Box culvert	Civil	GVMC, VSKP	1.00
<b>TOTAL</b>					<b>33.20</b>
<b>2004</b>					
1	Prof. P S Rao	Concrete Compressive Strength of 20 MPa at the age of 16 hrs for Reliance Gas Pipeline under Godavari River.	Civil	Zublin International GmbH, Germany	5.00
<b>TOTAL</b>					<b>5.00</b>