

Kajeev Gandni iviemoriai College of Engineering and Technology AUTONOMOUS

Nandyal - 518501, A. P., India

FACULTY ON-GOING RESEARCH AND ANALYSIS (FORAY) SCHEME

Call for Research Proposals for Academic Year 2019-20

Research and Development activities form a very vital component in building the strength of the college. It is important for faculty to be engaged in research and development activities as part of their continuous learning program. The R&D activities of the college are directed towards facilitating advanced and multidisciplinary research in topics of current interest worldwide as well as to expose the students to the research world and thus helping them to learn. In light of this vision, the R&D Board of the college is coordinating various research activities at the central level.

In this direction, the college has initiated FORAY – Faculty On-going Research and Analysis – scheme as an opportunity for the faculty of the institution, either individually or in groups, to conceive, prepare and present research proposals in the prescribed format enclosed for the prospective funding under this scheme.

Procedure:

- Proposals shall be submitted to the Dean (R&D). The proposals will be scrutin_zed for completeness by the Dean (R&D) and all incomplete proposals or those lacking proper justification will be returned to the concerned faculty or investigating team for re-drafting.
- Proposals that clear the initial screening will be scheduled for review by the Central Project Review Committee (CPRC). The concerned faculty or investigating team shall make a presentation before the CPRC consisting of Principal, Dean (R&D), Head of the Department, 4 senior faculty members / subject experts nominated by the Dean (R&D).
- The project grant will carry a maximum amount of Rs 5 lakhs to support the research as proposed by the faculty member or investigating team and approved by the CPRC. In case of deserving cases a higher amount may be approved by the CPRC. The decision of the CPRC will be final and binding. Preference will be given to inter-disciplinary research followed by collaborative research and lastly individual research.

Project Duration:

The project shall be tenable for a maximum duration of One (1) year/ 12 Months

Last Date for Submission of Proposals: August 30, 2019

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Project Implementation Guidelines

- 1. The grant being released is for the specified research project and should be spent exclusively only for the said project. The investigating team shall submit the acknowledgement form for receipt of the grant in the specified format.
- 2. The investigating team shall maintain separate documentation and account statements for the activities and purchases carried out during the course of the project from the fund received for the same.
- 3. The grant shall be utilized only for the specific heads for which the sanction has been made and shall not be utilized for any other head. If there is a likelihood of the budget head exceeding the sanctioned amount, prior permission needs to be taken from the Principal for readjustment of budget from other sanctioned heads. In no circumstance shall the budget exceed the overall sanctioned amount.
- 4. The PI shall settle the accounts of the project immediately after the completion of the project.
- 5. The date of commencement of the project shall be the date of issue of the sanction order.
- 6. Any un-spent balance out of the amount sanctioned shall be returned to the institution after the completion of the project.
- 7. The following documents shall be submitted to the Dean (R&D) after 6 months of start of the project as well as at the end of the project in the specified format:
 - i) Statement of Expenditure from date of start till date of submission
 - ii) Utilisation Certificate
- 8. Periodic reviews will be conducted for monitoring the progress of the project. The PI along with his team is required to present the status of the work once every 3 months to assess progress vis-à-vis their stated project plan. The presentation shall be limited to 10 minutes covering topics as listed in the Project Completion Report.
- 9. Once the project is completed, the PI shall submit a Project Completion Report in the specified format giving full details of the work carried out, papers published and facilities developed.

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- 10. It shall be the full responsibility of the PI to ensure that the project is completed according to the proposal submitted and within the stipulated one year time. In the event of the PI leaving the institution during the project period, the Co-PI shall take over the responsibility for execution of the project.
- 11. Equipment or facilities established as a result of the grant shall be suitably identified or labelled as funded under 'FORAY'.

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FACULTY ON-GOING RESEARCH AND ANALYSIS (FORAY) SCHEME PAC Meeting Held on 24-12-2019: Recommendations and Resolutions

Review was held on 24-12-2019 for proposals received under FORAY for the academic year 2019-20. A total of 11 proposals were received across departments as listed below.

S. No	Title of Proposal	Dept
1.	Estimation of flexural strength of fiber reinforced plastic beams	Civil
2.	Analysis and Evaluation of Faults in the Power Systems	EEE
3.	Design and synthesis of potential hybrid materials for co ₂ sequestration and in situ chemical conversion: a new frontier in environmental sciences	Chemistry
4.	Thermal characterization of Polymer Composite Materials	ME
5.	Thermal characterization of Metal Matrix Composite Materials	ME
6.	Marketing Strategies of Vijaya Dairy Pvt Ltd, Nandyal	MBA
7.	Enhancement of the DC Performance of PNPN Hetero Dielectric Box Tunnel Field Effect Transistor for Low Power Applications	ECE
8.	Analysis of delay cell based voltage controlled Ring Oscillator in CMOS	ECE
9.	Transient Analysis of Crosstalk Induced Effects in Mixed CNT Bundle Interconnects Using FDTD Technique	ECE
10.	Design and Fabrication of Agricultural farming Equipment	ME & ECE
11.	Exploring various metal oxide films-based rare earths doped super capacitors for energy storage applications	Physics

The proposals were reviewed by the Program Advisory Committee (PAC) comprising the members:

1. Mr. K. Tippa Reddy

2. Mr. P. Jitendra Kumar

3. Dr. G. Ramachandra Reddy

4. 5. Dr. T. Jayachandra Prasad

5. Dr. B. Rami Reddy

6. Dr. B. B. Prahalada Rao

DGM, SPY Agro Industries, Nandyal

MD, Entellous IoT Labs, Hyderabad.

Professor, VIT - Vellore.

Principal, RGMCET

Dean, Student affairs

Dean (R&D)

Dr. T. JAYACHAND **YPRASAD** M.E Pa.D.,



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The committee places on record its appreciation to all the faculty members who submitted and presented their proposals at the PAC meeting and is pleased to recommend for approval the following proposals and sanction of budget as indicated.

S.No	Title of Proposal	PI	Dept	Sanction Order No	Budget sanction Rs.
1	Estimation of flexural strength of fiber reinforced plastic beams	Dr. Joel Shelton, Mr. G N Sreekanth	Civil	RGM/FORAY/ 2019-20/1	1,11,037.C0
2	Analysis and Evaluation of Faults in the Power Systems	Dr. D. Lenine, Mr. G. Kumara Swamy, Mr. E. Narasimhulu	EEE	RGM/FORAY/ 2019-20/2	82,500.C0
3	Thermal characterization of Polymer Composite Materials	Dr. Syed Altaf Hussain, Dr. B. Sidda Reddy, Mr. M Khaja Gulam Hussain	ME	RGM/FORAY/ 2019-20/3	2,05,000.00
4	Thermal characterization of Metal Matrix Composite Materials	Dr. V. Chandra Sekhar, Mr. T John Babu	ME	RGM/FORAY/ 2019-20/4	2,40,000.00
5	Design and Fabrication of Agricultural farming Equipment	Dr. K. Thirupathi Reddy Dr. P. V. Gopi Krishna Rao Dr. R. Hanuma Naik	ME & ECE	RGM/FORAY/ 2019-20/5	1,40,905.00
6	Exploring various metal oxide films-based rare earths doped super capacitors for energy storage applications	Dr. N. Ravi Dr. K. Venkata Krishnaiah	Physics	RGM/FORAY/ 2019-20/6	1,27,050.00

The budget sanction therein is to cover the activities of these projects only. No additional budgetary allocation will be made.

Based on the recommendations of the PAC, the institution is pleased to release the sanction orders for the above mentioned proposals in response to the call for proposals for the academic year 2019-20. Other proposals, which were not taken up for consideration may be revised and resubmitted for possible funding for the next academic year.

Signed

Dean (R&D)

Dean (Student affairs)

Principal

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Sanction Order

Order No	RGM/FORAY/2019-20/1	27-01-2020
Title of the Project	Estimation of flexural strength	of fiber reinforced
	plastic beams	
PI	Dr. Joel Shelton	
Co-PI	Mr. G N Sreekanth	

Sanction is accorded for implementation of the above mentioned project at a total cost of Rs. 1,11,037/- (Rupees one lakh eleven thousand thirty seven Only) for a duration of 12 months and also to release an amount of Rs. 1,11,037/- (Rupees one lakh eleven thousand thirty seven Only) to the Principal Investigator. The items of expenditure, for which the total allocation of Rs. 1,11,037/- has been approved, are given below:

S.No	Details of Equipment	Amount (Rs.)
Equip	nent	
1	Grips for round specimen 10-25mm UTN 60T	15,340.00
2	Conversion kit for 3000KN EDI Digital CTM	95,697.00
	Total	1,11,037.00

Sanction of the grant is subject to the conditions as specified in the guidelines for implementation of FORAY research proposals.

The accounts of project shall be open to inspection by sanctioning authority/audit whenever the PI is called upon to do so.

The PI will furnish the Utilization Certificate and statement of expenditure pertaining to the grant immediately after the end of the project duration. Progress report needs to be furnished every six months.



Principal

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Sanction Order

Order No	RGM/FORAY/2019-20/2	27-01-2020
Title of the Project	Analysis and Evaluation of Faults in Systems	n the Power
PI	Dr. D. Lenine	
Co-PI	1. Mr. G. Kumara Swamy 2. Mr. E. Narasimhulu	

Sanction is accorded for implementation of the above mentioned project at a total cost of Rs. 82,500/- (Rupees Eighty two thousand five hundred Only) for a duration of 12 months and also to release an amount of Rs. 82,500/- (Rupees Eighty two thousand five hundred Only) to the Principal Investigator. The items of expenditure, for which the total allocation of Rs. 82,500/- has been approved, are given below:

S.No	Details of Equipment	Amount (Rs.)
Equip	nent	
1	5HP DC Shunt / 3KVA Alternator	77,500.00
Contin	gency	5,000.00
	Total	82,500.00

Sanction of the grant is subject to the conditions as specified in the guidelines for implementation of FORAY research proposals.

The accounts of project shall be open to inspection by sanctioning authority/audit whenever the PI is called upon to do so.

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Sanction Order

Order No	RGM/FORAY/2019-20/3	27-01-2020
Title of the Project	Thermal characterization of Polymer Materials	Composite
PI	Dr. Syed Altaf Hussain	
Co-PI	 Dr. B. Sidda Reddy Mr. M Khaja Gulam Hussain 	

Sanction is accorded for implementation of the above mentioned project at a total cost of Rs. 2,05,000/- (Rupees Two lakh five thousand Only) for a duration of 12 months and also to release an amount of Rs. 2,05,000/- (Rupees Two lakh five thousand Only) to the Principal Investigator. The items of expenditure, for which the total allocation of Rs. 2,05,000/- has been approved, are given below:

S.No	Details of Equipment	Amount (Rs.)	
Equipn	Equipment		
1	Heat Transfer Through Composite Wall Apparatus	39,000.00	
2	Emissivity Apparatus	42,000.00	
3	Surface Heat Transfer Coefficient By Natural Convection Apparatus	41,000.00	
4	Heat Transfer Through Pin Fin Apparatus	42,000.00	
5	Thermal Conductivity of Metal Rod Apparatus	41,000.00	
	Total	2,05,000.00	

Sanction of the grant is subject to the conditions as specified in the guidelines for implementation of FORAY research proposals.

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Sanction Order

Order No	RGM/FORAY/2019-20/4	27-01-2020	
Title of the Project	Thermal characterization of Metal Matrix Composite Materials		
PI Dr. V. Chandra Sekhar			
Co-PI	Mr. T John Babu		

Sanction is accorded for implementation of the above mentioned project at a total cost of Rs. 2,40,000/- (Rupees Two lakh forty thousand Only) for a duration of 12 months and also to release an amount of Rs. 2,40,000/- (Rupees Two lakh forty thousand Only) to the Principal Investigator. The items of expenditure, for which the total allocation of Rs. 2,40,000/- has been approved, are given below:

S.No	Details of Equipment	Amount (Rs.)	
Equipn	Equipment		
1	Steffen Boltzmann Apparatus	32,000.0C	
2	Heat Transfer Through Logged Pipe	38,000.00	
3	Thermal Conductivity of Insulating Powder	40,000.0C	
4	Crirical Heat Flux Apparatus	44,000.00	
5	Heat Pipe Apparatus	44,000.00	
6	Parallel flow and counter flow heat exchangers	42,000.00	
	Total	2,40,000.00	

Sanction of the grant is subject to the conditions as specified in the guidelines for implementation of FORAY research proposals.

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Sanction Order

Order No	RGM/FORAY/2019-20/5	27-01-2020
Title of the Project	Design and Fabrication of Agricultural farming Equipment	
PI Dr. K. Thirupathi Reddy		
Co-PI	 Dr. P. V. Gopi Krishna Rao Dr. R. Hanuma Naik 	

Sanction is accorded for implementation of the above mentioned project at a total cost of Rs. 1,40,905/- (Rupees One lakh forty thousand nine hundred and five Only) for a duration of 12 months and also to release an amount of Rs. 1,40,905/- (Rupees One lakh forty thousand nine hundred and five Only) to the Principal Investigator. The items of expenditure, for which the total allocation of Rs. 1,40,905/- has been approved, are given below:

S.No	Details of Equipment	Amount (Rs.)
Equipn	nent	
1	Fitting Bench Vices	73,500.0C
2	Carpentry Vices	67,405.00
	Total	1,40,905.00

Sanction of the grant is subject to the conditions as specified in the guidelines for implementation of FORAY research proposals.

The accounts of project shall be open to inspection by sanctioning authority/audit whenever the PI is called upon to do so.

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Sanction Order

Order No	RGM/FORAY/2019-20/6	27-01-2020
Title of the Project	Exploring various metal oxide films-based rare earths doped super capacitors for energy storage applications	
PI	Dr. N. Ravi	
Co-PI	Dr. K. Venkata Krishnaiah	

Sanction is accorded for implementation of the above mentioned project at a total cost of Rs. 1,27,050/- (Rupees One lakh twenty seven thousand fifty Only) for a duration of 12 months and also to release an amount of Rs. 1,27,050/- (Rupees Cne lakh twenty seven thousand fifty Only) to the Principal Investigator. The items of expenditure, for which the total allocation of Rs. 1,27,050/- has been approved, are given below:

S.No	Details of Equipment	Amount (Rs.)
Equipment		
1	Table top Spektrospin Pumpless Spin Coater-with 10000 RPM Multistage programming	1,27,050-00
Total		1,27,050-00

Sanction of the grant is subject to the conditions as specified in the guidelines for implementation of FORAY research proposals.

The accounts of project shall be open to inspection by sanctioning authority/audit whenever the PI is called upon to do so.

The PI will furnish the Utilization Certificate and statement of expenditure pertaining to the grant immediately after the end of the project duration. Progress report needs to be furnished every six months.



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