MINISTRY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF SCIENCE AND TECHNOLOGY

R&D Infrastructure Division

FORMAT FOR SUBMISSION OF PROPOSAL OF "SUPREME"

(**S**upport for **U**p-gradation **P**reventive **Re**pair & **M**aintenance of **E**quipment)

(PART- I)

1. a) Name of the organization/University/Institute & Year of Establishment:

Malla Reddy Engineering College & 2002

b) Address for correspondence including Telephone,email,etc.

Maisammaguda (H), Gundlapochampally Village
Medchal Mandal
Medchal-Malkajgiri District,
Telangana State – 500100
Phone : 040-64642037, 040-65864982
Cell : 9348161125.
Email : principal@mrec.ac.in

c) Name of the Vice-Chancellor / Director with Address and Mobile no

Principal: Dr. A. Ramaswami Reddy,
Maisammaguda (H), Gundlapochampally Village,
Medchal Mandal,
Medchal-Malkajgiri District,
Telangana State – 500100
Cell : 9348161125.
Email : principal@mrec.ac.in

d) Financial Status [Government (State Govt.)/ Govt. Aided/ Private] of organization/University/Institute (attach supporting documents).

Private –

e) Upload the copy of 2f and 12B Certificate issued by UGC along with online submitted proposal

https://mrec.ac.in/NAACDocument/20230120120459-2.%202f%20&%2012B.pdf

3 a) Overall Ranking of organization/University/Institute in NIRF (2022) as per MHRD (attach supporting documents)

NIRF Ranking (2022): 201-250

https://mrec.ac.in/NAACDocument/20230120155202-4.%20MoE,%20National%20Institute%20Ranking%20Framework%20(NIRF).pdf

b) h index of the organization/University/Institute (as per Web of Science) and I_{10} Index (as per Web of Science / Google Scholar for whole organization/University/Institute with bifurcation of top 25 faculty members only for STEM Areas

https://mrec.irins.org/

c) NAAC accreditation/Grading:

A^{++} Cycle III

4 Brief details of each Department (only STEM Departments)

Name of the Department/ Centre	Name of HoD	Name of major instrument / AIFs available (operational)	Funding agency of these instruments (AIFs)	Total cost of instruments (AIFs)
Civil Engineering	Dr. J Selwyn Babu	1. Tri Axial Test 2. Digital Compression Testing Machine 2000Kn 3. Hydraulic jump apparatus 4. Pelton wheel turbine 5. Francis turbine		
Electrical & Electronics Engineering	Dr. M. Kondalu			
Mechanical Engineering	Dr. A. Raveendra			
Electronics & Communication Engineering	Dr. M. Jagadeesh Chandra Prasad			
Computer Science & Engineering	Dr. S. Shiva Prasad			
Mining Engineering	Dr. Srinivas K			
Information Technology	Dr. M. Deena Babu			

5. Distinction earned by faculty members like National and International Awards, Recognitions, Fellowship of Science Academies (FNA, FASc, FNAE, FNASc, FNASS, FNAMS, FIEEE, FTWAS), J C Bose Fellowship and SS Bhatnagar Award.

6. Department-wise Research Output during last 5 years

Name of Department / Centre	Research Output in terms of		Name of Important Journals & their Impact Factor
	No of Publications in SCI Journals only	No of Patents/ IPR	
Civil Engineering			
Electrical & Electronics Engineering			
Mechanical Engineering			
Electronics & Communication Engineering			

7.

Details of facilities created with DST support viz: FIST/PURSE support, if any.

Nil

8. List of year wise Top Thirty (30) important publications with their latest Impact Factor as per Web of Science in the last 5 years. List of a few publications may be provided in a table (separately), where the acknowledgement of the facility is accessible, as a result of utilization of the analytical instrumentation facilities (AIFs), those created with the support of FIST/PURSE grant or any other DST support.

S.No	Name of the Publication	Name of the journal
1.	A Study on Data Prevention Approaches for Cloud Computing	International Journal of Future Generation Communication and Networking
2.	Feeder Protection From Over Load Situationsthrough IoT	International Journal of Future Generation Communication and Networking
3.	Modeling of Smart Electric Vehicle Charging Hub	International Journal of Future Generation Communication and Networking
4.	Significant Analysis of Entrepreneurship Course in Engineering Curriculum	Indian Journal of Natural Sciences
5.	3Φ Transformerless Shunt Active Power Filter for Harmonic Compensation	Indian Journal of Natural Sciences
6.	Multi-Level Quasi Z Source Inverter for Control of BSS and Stable Operation of Asynchronous Motor Drive	Indian Journal of Natural Sciences
7.	Application of Bidirectional DC Converter for Battery Energy System	Indian Journal of Natural Sciences
8.	A PDM Based MPPT Controller for Single Phase Grid Tied Inverter	Indian Journal of Natural Sciences
9.	A Passive Islanding Detection Method for Distributed Generation using Rate of Change of Frequency	Indian Journal of Natural Sciences
10.	Design of Multilevel Inverter with Two DC Sources	Indian Journal of Natural Sciences
11.	A Solar-Powered Water Pumping System using a CUK Converter-Based Brush Less Direct Current Motor	Indian Journal of Natural Sciences
12.	A Single-Phase Z-Source Charger with Soft Switch Modulation for Electric Vehicle Application	Indian Journal of Natural Sciences
13.	Cascade Multilevel Inverter with Reduced Harmonic Distortion for Renewable Energy Application	Indian Journal of Natural Sciences
14.	Transformerless Inverter Designed for Solar PV Applications	Indian Journal of Natural Sciences
15.	Performance of Electric Vehicles Based on Switched Capacitor Voltage Boost Converter	Indian Journal of Natural Sciences
16.	Integration of Renewable Energy Sources with Control in Railway Microgrid	Indian Journal of Natural Sciences
17.	Tensor Completion With DCT Based Gradient Method	Journal of Mechanics of Continua and Mathematical Sciences (JMCME)
18.	The Effect of Lambda in Recovering the Highly Corrupted Image using Adaptive Directional Lifting Induced Proximal Gradient Method	Indian Journal of Natural Sciences

	Early Identification of Tomoto Plant Leaf Diseases using Clustering and Neural Networks	International Journal of Future Generation Communication and Networking
20.	A Study on Data Prevention Approaches for Cloud Computing	International Journal of Future Generation Communication and Networking
21.	Video Summarization: Keyframe Extraction based on Absolute Difference Model"	International Journal of Grid and Distributed Computing
22.	An Efficeint Associated Secured Biometrcit Authentication for IoT	International Journal of Grid and Distributed Computing
23.	TOWARDS SECURITY AND PRIVACY CONCERNS IN THE INTERNET OF THINGS IN THE AGRICULTURE SECTOR	Turkish Journal of Physiotherapy and Rehabilitation
24.	A Detailed Review of Image Augmentation and Segmentation Of Brain MRI Images Using Deepm Learning	Paideuma Journal of Research
25.	Analysis on impact of thermal barrier coating on piston head in CI engine using biodiesel	International Journal of Ambient Energy
26.	Experimental investigation B20 blend in the DI diesel engine with a modication of smaller orifice injection nozzle and after treatment systems(EGR+DPF)	International Journal of Ambient Energy
27.	Optimization of Process Parameters on EDM of Titanium alloy	Material Today: Proceesings
28.	Influence of drinking water and graphite powder concentration on electrical discharge machining of Ti-6Al-4V alloy	Material Today: Proceesings
29.	Assessment of dynamic properties of hybrid ribbon reinforced multifunctional composite sandwich plates: Numerical and experimental investigation	Thin Walled Structures: Elsevier
30.	Experimental Investigation of the Combustion Characteristic of Mahua Oil Biodiesel-Diesel Blend using a DI Diesel Engine Modified with EGR and Nozzle Hole Orifice Diameter	Biofuel Research Journal

9. Relevant strengths and proven track record of the facility which is projected for repair / upgradation / retrofitting etc.

10. Details of funds requested under SUPREME Scheme

A. Non-Recurring items (Capital)

i) Name of the Research Facility projected for repair / upgradation / retrofitting etc

ii) Approx. Cost (Rs in Lakhs)

B Recurring Items (General)

i) Maintenance of Facilities

Declaration: -

Information submitted at Part-I & II of format of SUPREME are true and correct. ***The above proposal to receive support under SUPREME is fully aware of and understood the "Terms and Conditions" of SUPREME -DST and these <u>"terms and conditions"</u> are being endorsed by the Governing council or Senate of the Institute / University/ R&D Organization***. Host institute (HI)/ organization is fully aware of the funding and its implementation i.e., the funding pattern & its mode will be maintained at 75:25 ratio. DST share would be 75% and the management of the Government / Non-Government Grantee Institute / R&D center / organization share would be 25% of the total sanctioned cost of SUPREME project for three years. The share of 25% (of total sanctioned amount) will be contributed by the HIs from its own income sources and not from diverting the funds available with HI under the Grant-in-aids received from other Department of Government of India or from the CFI, GoI. (Except for state funded institutions for which 100% funding would be considered). In case, these are found otherwise, the proposal and the claim thereof would be withdrawn by the sponsoring agency.

Signature of the Coordinator of AIFs.
(Faculty Member with minimum 5 years of service at HIs)

Signature of the Head of the organization
(Director / Vice-Chancellor)

Date & Seal:

Registrar or Head of Finance of the *organization*

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*Chairman of Trust/ Board/ Management

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