National Institute of Technology Calicut

Office of Dean (R & C)

Funding Scheme for UG/PG Students to Carry Out Innovative Projects
Application Format - 2021

1	Name of the applicants • Maximum 4 students for B. Tech/B. Arch students • Individual projects for PG students	Roll No	Branch of study	Mobile Number & email id
	POOLA ROHITH	B180712ME	MECHANICAL	9441120187 rohith18p@gmail.com
	AKONDI SAI MANOJ	B180161ME	MECHANICAL	6303364524 manojakondi25@gmail.com
	MAMIDI THEJONATH	B180129ME	MECHANICAL	9441214164 tejonathg21@gmail.com
	KURAGANTI VEDANTHAM	B180473ME	MECHANICAL	9381222285 vedantham_b180473me@nitc.ac.in
2	Name of the project leader (one of the students shall be the project leader)	POOLA ROHITH		
	Mobile Number & email id	9441120187 rohith18p@gmail.com		
	Name of FA/PC	Dr. Ashesh Saha		
3	Title of the project proposal	Robot Based Automation for Vertical Farming		

4	Expected outcome of the project-point wise (details shall be given in attached proposal)	• Fully automated robotic system for vertical farming. • Automation of planting, watering, inspection, conditioning and harvesting of crops. • Patents for the innovation or publishing of SCI Journal.	
5	Deliverables - research paper in SCI journal or patent/copyright of novel idea to be filed or a novel product to be commercialized or technology transfer	Patents / Research paper in SCI journal	
6	Total fund requested (Rs)	100000	
7	Name of guide(s)	Students from different depts. or doing interdisciplinary projects can provide guides from appropriate discipline.	
	Name of guide(s)/co-guide	Dept.	Mobile No & email id
	Dr. A P Sudheer	Mechanical	9961450987 apsudheer@nitc.ac.in
	Dr. K Sekar	Mechanical	9746562695 sekar@nitc.ac.in
8	Significance of the proposed project (details shall be given in attached proposal)	Implementation of vertical farming and Hydroponics which are the future of agriculture. Automating the Vertical farming by robot-based system and artificial intelligence has wide impact and greater advantages and flexibilities than the conventional farming.	

9	Expected time required for completion of project (attach semester wise targets)	10 months (until 31-MAR-2022)	SEVENTH SEMESTER • Finalizing the project details and idea. • Complete design and development of CAD model. • Simulation and analysis EIGHTH SEMESTER • Prototype fabrication and assembly. • Complete control and automation.
10	<u>Split-up of Budget in Rs</u>	Stage 1 (first six months)	Stage 2 (remaining period)
	Software packages	-	-
	Minor equipment *	-	-
	Consumables	-	17000
	Contingencies	-	20000
	Others if any		
	Mechanical Components	-	10000
	Electronic components	-	53000
	Total		100000

(Give details of all the students sequentially in the case of a group. For a group with students from different departments, recommendation from the concerned head of department of all students shall be obtained)

- Name & Signature of the applicant(s):

1. POOLA ROHITH

   P. Rohith.

2. AKONDI SAI MANOJ

   A Sai Manoj

3. MAMIDI TEJONATH

   M. TJ

4. KURAGANTI VEDANTHAM

   K. Vedantham

- Name & Signature of project guide(s): I/we have gone through the proposal and guidelines.

GUIDE:

Dr. SUDHEER A. P.

Assistant Professor

Mechanical department

27/05/2021

CO-GUIDE:

Dr. K. Sekar

Dr. K Sekar

Assistant Professor

Mechanical department

- Recommendation from the Head of the Department:

Dr. JOSE MATHEW

Professor (HAG)

Mechanical Department

13-6-21

Notes:

(1) A detailed proposal must be attached along with this application giving the objectives, significance of the work, expected outcomes, literature review (including patent search), methodology and work plan, budget with justifications and any other relevant information in support of the proposal

(2) The aim of this funding scheme is to promote research culture in UG students and accordingly through the research, they shall develop an innovative product. This can also lead to commercialization and start-up or patenting the novelty. Minimum an SCI journal publication shall come from the project. The financial assistance will be provided to carry out the related activities (to meet the expenses related to fabrication/assembly charges, consumables and contingency). * minor equipment /tools may be permitted, if very specific and essential. No major equipment is permitted under this scheme.