Temporary Registration No. : TPN / 101608

Project Proposal On

"Socio economic and livelihood development with Bamboo handicrafts for Babjhari tribes in Narnoor Mandal, Adilabad District, Telangana."

Submitted to

Division :SEED

Programme or Scheme : Tribal Sub Plan (TSP)

Submitted by

Project Investigator:

Dr. P JOEL JOSEPHSON

MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)-Hyderabad

Part 1 : General Information

General Information:

Name of the Institute/University/Organisation submitting the Project Proposal :

MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)

State	Telangana
Principal Investigrator Name:	Dr. P JOEL JOSEPHSON
Category:	General
Type of the Institue :	Academic Institutions (Private)
Project Title :	Socio economic and livelihood development with Bamboo handicrafts for Babjhari tribes in Narnoor Mandal, Adilabad District, Telangana.
Division :	SEED
Programme Or Scheme :	Tribal Sub Plan (TSP)
Academic Area :	Earth and Atmospherical Science, Life Science,
Application Area :	Basic Science, Food and agriculture, Land Resources,
Goverment National Initiative :	Swachh Bhart, Digital India, Smart Village,
Type of Proposal :	Proposal Against Call
Project Duration :	3 Years
Proposal Submit Date :	30/10/2023
Project Keywords :	Empower, Bamboo Products, Healthcare

Project Summary :

1.To elevate the socio-economic status of the Scheduled Tribes residing in Babjhari village.
2.To train the Gonds on new tools and technologies in making bamboo handicrafts.
3.To enhance the healthcare facilities and infrastructure for ST community.
4.To empower the beneficiaries with improved income generation.

Statement of the problem
i.State the main problem you seek to address
The main problem that we are proposing to address is the socio-economic underdevelopment and marginalization of the Scheduled Tribes ST in Babjhari Village. This community faces various interconnected challenges, including

Low Socio-Economic Status ST communities in Babjhari Village experience poverty and limited access to economic opportunities, resulting in a low socio-economic status.
Limited Access to Education and Healthcare ST children and families face barriers to accessing quality education and healthcare services, leading to lower educational attainment and health disparities.
Unemployment and Lack of Skills The ST youth in the village lack the necessary skills and opportunities for employment, leading to high rates of unemployment and underemployment.
Limited Income-Generation Opportunities The lack of sustainable income-generation opportunities for the ST community perpetuate poverty and economic dependency.

The people in the village have the opportunity to work for 6 months in a year. The remaining six months they are idle. So, in order to improve the economic status get regular income, this project will be useful.

ii.Who has this problem, where does it occur
This problem is there in all the scheduled tribes ST. But we are intended to concentrate on the Scheduled tribes that located in Babjhari village, Narnoor Mandal, Adilabad District, Telangana.

iii.How did you come to know of this, did the people who have problem approach you or you visualized it yourself
We have visualized situation after talking to the people from the nearby villages of Babjhari and also talked to the people of Babjhari.

Methodology
The project helps in improving the livelihood of the people living in the tribal community by making them expertise in the following methods

•To impart efficient training to the beneficiaries in making bamboo handicrafts with the recent advancements.
•To conduct awareness camps on First Aid in case of emergencies like Snake bite, heart stroke, water drowning or any such other unforeseen incidents.

i Technology Selection State the criteria used for selection of technology for addressing key problems and the assessment of available technologies related to the project

1. Bamboo Technologies

Treatment of dry bamboo In order to improve the life span, the Bamboo can be treated with the oil type Coal tar creosote, water soluble type Copper Chrome Arsenic, Copper Chrome Boric Boric acid and Borax and organic solvent type Copper/Zinc Naphthanate, Copper/Zinc abietate etc of preservatives.

Dipping Method However, if the bamboos are used in the open and in the contact with the ground and if they are round, a hot dipping method 2 hours or open tank method 4-6 hours or pressure 1 hour method is used.

Pressure Treatment When the treated material needs to be put in the most hazardous places, maximum absorption of the preservative is desired. For this purpose, the Full cell-process or Vacuum pressure impregnation method is followed. In this method an initial vacuum is created. Preservative is introduced into the cylinder. Pressure up to 3 to 12.5Kg/cm2 will be applied. Depending on the species and the time period the bamboo needs to survive the treatment schedule needs to be calculated. After the required time period the preservative is withdrawn and a final vacuum for a short period is applied. Then the bamboo is removed from the treatment cylinder after the dipping of the preservatives is stopped. Then the bamboo is kept for fixation for a period of 3-4 weeks. After that the treated bamboo can be put into use.

Treatment of green bamboos It is not easy to treat bamboos conventionally as they are refractory to treatment. They resist the entry of preservatives it is because of the structure of bamboo. Bamboo is divided into nodes and internodes. The tissue is made of parenchyma cells and vascular bundles. The latter consists of vessels, thick-walled fibres and a sieve tube. The water movement takes place through a vessel. Bamboos have no radial elements like rays in wood. Outside and inside membranes are covered by hard cuticles, which offer considerable resistance to absorption of water particularly when dry even after the application of pressure. The node and internodes anatomical features explain the refractory nature of bamboo. This has made it possible to explore other methods of conventional pressure treatment.

Diffusion process This is the best and simplest process for the treatment of green, round or split bamboo wherein the materials 3 to 4 years old are submerged in preservative solution sufficiently to obtain adequate absorption in quantity and depth. In fact, this method could be universally specified for the treatment of bamboos for all purposes

because of requiring little equipment and technical knowledge.

Outcomes

Pre-Intervention Bench MarkAnticipated Outcome likely deliverables
Technology Incorporation in BambooAdvanced machinery and equipment have made bamboo processing more efficient. This includes cutting, splitting, and laminating bamboo into various forms suitable for construction, furniture, and other applications.
Advanced technology has enabled the development of bamboo composites, which combine bamboo fibers with other materials like resins or plastics. These composites are strong, lightweight, and durable, making them suitable for a wide range of applications, including automotive parts, furniture, and sporting goods.
Bamboo is increasingly being used in construction due to its strength, flexibility, and sustainability. Advanced engineering techniques and software help design and construct bamboo structures, including bridges, buildings, and scaffolding, with precision and safety.
Training on First aid measuresFirst aid training provides participants with the knowledge and skills to perform lifesaving interventions, such as CPR Cardiopulmonary Resuscitation, controlling bleeding, and stabilizing injured individuals until professional medical help arrives.
Prompt and effective first aid can significantly improve the chances of survival for individuals experiencing medical emergencies, such as heart attacks, choking, or severe injuries.
First aid training emphasizes the importance of a rapid response to emergencies, which can make a crucial difference in critical situations.
Widespread first aid training within a community can lead to increased community resilience in the face of disasters, accidents, and health crises.

Part 2: Particulars of Investigators

Principal Investigator:

1. Name:	Dr. P JOEL JOSEPHSON
Gender:	Male
Date of Birth:	14/01/1984
Designation :	Associate Professor
Department:	Electronics and Communication Engineering
Institute/University:	MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)
State:	Telangana
District:	MEDCHAL MALKAJGIRI
City/Place:	Hyderabad
Address:	Maisammaguda, Dhulapally, (post via Kompally), Secundarabad, Telangana.
Pin:	500100
Communication Email:	joeljosephsonp@gmail.com
Alternate Email:	pjoelece@mrec.ac.in
Mobile:	9885217197

Phone:	
Fax:	
Category:	General

Co-Investigator:

1. Name:	Dr. J REX
Gender:	Male
Date of Birth:	09/05/1986
Designation :	Associate Professor
Department:	Civil Engineering
Institute/University:	MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)
State:	Telangana
District:	MEDCHAL MALKAJGIRI
City/Place:	Secunderabad
Address:	Department of Civil Engineering, MREC, Maisammaguda Secunderabad
Pin:	500100
Communication Email:	rexdindigul@gmail.com
Alternate Email:	
Mobile:	9994348591
Phone:	
Fax:	
Category:	OBC
2. Name:	Dr. S Jagadeesh Babu
Gender:	Male
Date of Birth:	11/05/1985

Designation :	Assistant Professor
Department:	Physics
Institute/University:	MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)
State:	Telangana
District:	MEDCHAL MALKAJGIRI
City/Place:	SECUNDERABAD
Address:	Malla Reddy Engineering College-Autonomous
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Communication Email:	sjbabu.phd@gmail.com
Alternate Email:	
Mobile:	9160899889
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Fax:	
Category:	OBC

3. Name: Dr. RAMU VANKUDOTH

Gender:	Male
Date of Birth:	13/06/1986
Designation :	Assistant Professor
Department:	Computer Science and Engineering Data Science
Institute/University:	MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)
State:	Telangana
District:	MEDCHAL MALKAJGIRI
City/Place:	Secunderabad
Address:	Department of CSE-Data Science, Malla Reddy Engineering College(A), Maisammaguda, Secunderabad
Pin:	500100

Communication Email:	ramuvankudoth86@gmail.com
Alternate Email:	
Mobile:	8309175449
Phone:	
Fax:	
Category:	ST

4. Name: Mr. P Rajasekhar Reddy

Gender:	Male
Date of Birth:	15/06/1988
Designation :	Assistant Professor
Department:	Electronics and Communication Engineering
Institute/University:	MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)
State:	Telangana
District:	MEDCHAL MALKAJGIRI
City/Place:	Secunderabad
Address:	Department of ECE, Malla Reddy Engineering College, Maisammaguda,
Pin:	500100
Communication Email:	sekharpraja@gmail.com
Alternate Email:	
Mobile:	9492900508
Phone:	
Fax:	
Category:	General

5. Name: Mr. Vasala Vinod kumar

Gender:	Male

Date of Birth:	14/12/1993
Designation :	Assistant proffessor
Department:	Mining Engineering
Institute/University:	MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)
State:	Telangana
District:	MEDCHAL MALKAJGIRI
City/Place:	Secunderabad
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Pin:	500100
Communication Email:	vinodhkumar2529@gmail.com
Alternate Email:	
Mobile:	9000445093
Phone:	
Fax:	
Category:	SC

6. Name: Mr. PILLI UDAY

Gender:	Male
Date of Birth:	22/06/1993
Designation :	ASST.PROFESSOR
Department:	CSE
Institute/University:	MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)
State:	Telangana
District:	MEDCHAL MALKAJGIRI
City/Place:	SECUNDRABAD
Address:	DEPARTMENT OF CSE,MREC,MAISAMMAGUDA

Pin: 500100

Communication Email: udayfranklin93@gmail.com

Alternate Email:

Mobile: 9908979915

Phone:

Fax:

Category: SC

Part 3: Suggested Refrees

Suggested Refrees: NA

Part 4: Financial Details

Financial Details:

A. Non - Recurring

Equipment

S.	Equipments	Qty.	Justification	1 Year	Total
1 .	Bamboo Chain Splitter	1	Bamboo Chain Splitter	127000	127000
2 .	Bamboo Cutting	1	cut & Trim outer knot of bamboo	69500	69500
3 .	Bamboo Dryer Machine	2	Bamboo Dryer Machine	600000	600000
4 .	Bamboo Hand Slicer	3	Bamboo Hand Slicer	106500	106500
			Total	**903000**	**903000**

Other NonRecurring

S.	Description	Justification	1 Year	2 Year	3 Year	Total
1 .	Fabrication Cost	Bamboo Fabrication,Low Cost Construction Fabrication	250000	0	0	250000
2 .	Fabrication of Equipment	Fabrication of Equipment	0	25000	25000	50000
		Total	**250000**	**25000**	**25000**	**300000**

B. Recurring

Project Staff

S.	Project Staff	No.	Justification	1 Year	2 Year	3 Year	Total
1 .	Junior Research Fellow (JRF)	2	Manpower JRF (2) (31,000+HRA 12%=34,720-00)	833280	833280	833280	2499840
			Total	**833280**	**833280**	**833280**	**2499840**

Consumables

S.	Items	Qty.	Justification	1 Year	2 Year	3 Year	Total
1 .	Consumables	1	Materials of concrete	200000	150000	150000	500000
			Total	**200000**	**150000**	**150000**	**500000**

Contingency

S.	Description	Justification	1 Year	2 Year	3 Year	Total
1 .	Contingencies	circumstance which is possible	100000	150000	150000	400000
		Total	**100000**	**150000**	**150000**	**400000**

Travel

S.	Description	Justification	1 Year	2 Year	3 Year	Total
1 .	Travel	Project Logistics & Field Activities	50000	50000	50000	150000
		Total	**50000**	**50000**	**50000**	**150000**

Overhead

S.	Description	Justification	1 Year	2 Year	3 Year	Total
1 .	overhead	overhead	50000	50000	50000	150000
		Total	**50000**	**50000**	**50000**	**150000**

Any Other Recurring

S.	Description	Justification	1 Year	2 Year	3 Year	Total
1 .	Other Costs	Other Costs	200000	200000	200000	600000
2 .	Review Meeting by DST	to update the progress of project	150000	150000	150000	450000
3 .	Training Programme	Training given to local ST people	300000	250000	250000	800000
		Total	**650000**	**600000**	**600000**	**1850000**

Budget Head Summary in (INR)

Budget Head	Year-1	Year-2	Year-3	Total
1- Non-Recurring				
Equipment	903000	0	0	**903000**
Other NonRecurring	250000	25000	25000	**300000**
Subtotal (Capital)	1153000	25000	25000	**1203000**
2- Recurring				
Project Staff	833280	833280	833280	**2499840**
Consumables	200000	150000	150000	**500000**
Contingency	100000	150000	150000	**400000**
Travel	50000	50000	50000	**150000**
Overhead	50000	50000	50000	**150000**
Any Other Recurring	650000	600000	600000	**1850000**
Subtotal (General)	1883280	1833280	1833280	**5549840**
Total Project Cost (Capital + General)	**3036280**	**1858280**	**1858280**	**6752840**

Part 5: PFMS Details

PFMS Unique Code Available: Yes

PFMS Unique Code : TLML00000156

Part 6: Current Ongoing Project

Current Ongoing Project: NA

List of Uploaded Documents:-

1. Complete Project proposal
2. Biodata
3. Certificate from PI
4. Conflict of interest
5. Endorsement from head of Institute
6. Quotation for Equipments

PART I – GENERAL INFORMATION

1. **Project Title:** Socio economic and livelihood development with Bamboo handicrafts for Babjhari tribes in Narnoor Mandal, Adilabad District, Telangana.

2. **Name of the Institution & Address:**
Malla Reddy Engineering College, Main Campus, Maisammaguda(H),
Gundlapochampally (V),Medchal (M), Medchal-Malkajgiri District, Telangana - 500100.

3. **Type of Organisation/Institution**:

Type	*Please Tick*
Academic institution	√
Research Organization	
Sate S&T Council	
Voluntary Organization/NGO	
Panchayati Raj Institution (PRI)	
Krishi Vigyan Kendra	
Other (please specify)	

Note: Collaborative proposals will be generally encouraged

4. **Collaboration, if any**:

Sl. No.	*Name and Address of the Collaborators*	*Purpose*
1.		

5. **Details of the Project Team (details of all the investigators should be given)**

i. Principal Investigator	
Name	Dr P.Joel Josephson
Date of Birth	14-January-1984
Highest Qualification	Ph.D
Designation	Associate Professor
Department	Electronics and Communication Engineering
Institute/University	Malla Reddy Engineering College
Complete Address with Pin Code	Main Campus, Maisammaguda(H), Gundlapochampally (V),Medchal (M), Medchal-Malkajgiri District Telangana - 500100.
Telephone and Fax Numbers	
Mobile Number	9885217197
E – Mail	joeljosephsonp@gmail.com
ii. Co-Investigator	
Name	Dr.J.Rex
Date of Birth	09-May-1986
Highest Qualification	Ph.D
Designation	Associate Professor
Department	Civil Engineering
Institute/University	Malla Reddy Engineering College
Complete Address with Pin Code	Main Campus, Maisammaguda(H), Gundlapochampally (V),Medchal (M),

	Medchal-Malkajgiri District Telangana - 500100.
Telephone and Fax Numbers	
Mobile Number	9994348591
E – Mail	rexdindigul@gmail.com
iii. Co-Investigator	
Name	Dr. S Jagadeesh Babu
Date of Birth	11-05-1985
Highest Qualification	Ph.D
Designation	Assistant Professor
Department	Physics
Institute/University	Malla Reddy Engineering College
Complete Address with Pin Code	Main Campus, Maisammaguda(H), Gundlapochampally (V),Medchal (M), Medchal-Malkajgiri District Telangana - 500100.
Telephone and Fax Numbers	
Mobile Number	9160899889
E – Mail	sjbabu.phd@gmail.com
iv. Co-Investigator	
Name	Dr. V. Ramu
Date of Birth	13/06/1986
Highest Qualification	Ph.D
Designation	Assistant Professor
Department	Computer Science and Engineering – Data Science
Institute/University	Malla Reddy Engineering College(A)
Complete Address with Pin Code	Main Campus, Maisammaguda(H), Gundlapochampally (V),Medchal (M), Medchal-Malkajgiri District Telangana - 500100.
Telephone and Fax Numbers	
Mobile Number	8309175449
E – Mail	ramuds@mrec.ac.in
v. Co-Investigator	
Name	Rajasekhar Reddy Poreddy
Date of Birth	15/06/1988
Highest Qualification	M.Tech
Designation	Assistant Professor
Department	Electronics and Communication Engineering
Institute/University	Malla Reddy Engineering College
Complete Address with Pin Code	Main Campus, Maisammaguda(H), Gundlapochampally (V),Medchal (M), Medchal-Malkajgiri District Telangana - 500100.
Telephone and Fax Numbers	
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E – Mail	sekharpraja@gmail.com
vi. Co-Investigator	
Name	Mr. V. Vinod Kumar
Date of Birth	14/12/1993
Highest Qualification	M.Tech
Designation	Assistant professor
Department	Mining Engineering

Institute/University	Malla Reddy Engineering College
Complete Address with Pin Code	Main Campus, Maisammaguda(H), Gundlapochampally (V),Medchal (M), Medchal-Malkajgiri District Telangana - 500100.
Telephone and Fax Numbers	
Mobile Number	9000445093
E – Mail	vinodkumar@mrec.ac.in
vii. Co-Investigator	
Name	P.Uday
Date of Birth	22/6/1993
Highest Qualification	M.Tech
Designation	Assistant Professor
Department	Computer Science and Engineering
Institute/University	Malla Reddy Engineering COllege
Complete Address with Pin Code	Main Campus, Maisammaguda(H), Gundlapochampally (V),Medchal (M), Medchal-Malkajgiri District Telangana - 500100.
Telephone and Fax Numbers	
Mobile Number	9908979915
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6. Whether your organization has been sanctioned by DST projects or by other central/state governments or from foreign funding agencies in the past (up to 5 years)? YES/NO.If yes, provide details as given below
YES

Details of ongoing/completed projects of the Institute during the last 5 years				
Sl. No.	**Name of the project and Reference No**	**Funding Agency/Division**	**Cost & Duration**	**Status**
1	Impact of Artificial Intelligence in the field of Agriculture & AICTE/1650613785	AICTE-ATAL FDP	Rs. 3,00,000/- &2 weeks	Completed
2	Student club under the scheme for Promoting Interests, Creativity and Ethics among Students (SPICES) & File No: 10-73/AICTE/IDC/SPICES/2020-21	AICTE	Rs. 3,00,000/- & 1 Year	Completed
3	Advanced Training Program on Teaching & ISTE/AICTE-ISTE FDP/1-3513716560/2018-19	AICTE	Rs. 3,00,000/- & 1 week	Completed
4	Finite Element Analysis using ABAQUS &Ref . N o. 3 4-66 / 67 / F DCISTTP/ P o I i cv -L / 2oI9 -20	AICTE-STTP	Rs. 3,15,000/- & 3 week	Completed
5	Teaching-Pedagogical Intelligence & Ref. No. 3+-67 /1.12/FDC/FDp/p- r/201.s_20	AICTE, FDP	Rs. 4,34,000/- & 6 months	Completed

6	Solar Desalination for Nano and Micro Hierarchical Structures & Procs No.JNTUH/TEQIP-III/CRS/2019/MECH/01	JNTU-Hyderabad	Rs. 2,85,000/- & 1 year	Completed
7	Software defined Radio Lab & F.No.9-204/RIFD/MODROB/POLICY-1/2017-18	AICTE-MODROB	Rs. 12,71,000/- & 2 years	Completed
8	Big Data Analytics using R, Hadoop and Spark & F.No.34-55/223/RIFD/FDP/POLICY-1/2017-18	AICTE-FDP	Rs. 3,90,000/- & 1 year	Completed
9	Research Methodology in Engineering and Technical writing using LaTex& F.No.34-56/70/RIFD/STTP/ POLICY-1/2017-18	AICTE-STTP	Rs. 2,92,000/- & 1 year	Completed
10	LabVIEW for Measuremnt and Data Analysis & F.No.34-56/109/RIFD/STTP/ POLICY-1/2017-18	AICTE-STTP	Rs. 2,73,000/- & 1 year	Completed
11	Recent Trends in Mineral Exploration & Lr NoCRP/HRD/695/II/2295	SCCL	Rs. 25,000/- & 2 Days	Completed
12	Recent Trends in Mineral Exploration	Mining Engineer's Association of India	Rs. 50,000/- & 2 Days	Completed
13	Engineering Drawing - An Effective Teaching Methodology & ISTE/AICTE-ISTE Induction/Refresher Program/2018	AICTE-STTP	Rs. 3,00,000/- & 6 Days	Completed
14	Unnat Bharat Abhiyaan & D.O. No. 5-1/2016-UBA	UBA	Rs. 3,00,000/- & 2 years	Completed
15	Modernization of Microwave Engineering lab & F.No.9- I 97 IIDCIMODROB/Policy-| 12019-20	AICTE, MODROB	Rs. 5,59,216/- & 2 years	On - going
16	Research laboratory for power quality analysis and enrichment & File No. B-214IR.IFD,/RPS {POLICY-1)/2078	AICTE-RPS	Rs. 9,10,980/- & 3 years	On - going
17	Performance And Vibration Characterization Of Rubber Seed Oil Methyl Ester(Rsme) Bio-Diesel Based Vcr Engine MOUNTED ON AI6O51-SIC-RUBBER MOUNTS & File No. 8-38/FDclRPs (POttcY-l) l20L9-20	AICTE-RPS	Rs. 11,90,196/- & 3 years	On - going

18	Margdashan Initiative &F.No. 5B-41 /Margdarshak Cell/2020 -21	AICTE	Rs. 50,00,000/- & 3 Years	On-going
19	A Smart Agriculture Application Development for Monitoring the Fields Using IoT and AI & AI4E-2259-T5L7-21100407	Microsoft AI for Earth	Rs. 1,00,00,000/- & 3 Years	On-going
20	Skill and Personality Development Programme Center for SC/ ST Students SPDC & F; IIo. 65.26/IDC/SPDC/POLIC-1/2019-20	AICTE-SPDC	Rs. 15,13,400/- & 3 Years	On-going
20	Design and Development of Electrocoagulation unit for the processing of Electroplating waste water & F.No.8-23/FDC/RPS/POLICY-1/2021-22	AICTE-RPS	Rs. 17,50,000/- & 3 Years	On-going
21	Empowering Defense Applications with Advanced VLSI Dedsign AICTE/1691400399	AICTE-FDP	Rs.3,00,000/- & 2 weeks	On-going
22	Optimization and Automation of Movement of Filling Carrier in Handlooms. DST/SHRIC/SHRI-18/2022(G)	Department of Science & Technology (DST)	Rs.28,96,820/- 3Years	On-going

7**. (i) Details of ongoing/completed projects of the investigator(s) during the last 5 years**

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
NIL				

(ii) Details of ongoing/completed projects of the Institute during the last 5 years

Details of ongoing/completed projects of the Institute during the last 5 years				
Sl. No.	**Name of the project and Reference No**	**Funding Agency/Division**	**Cost & Duration**	**Status**
1	Impact of Artifical Intelligence in the field of Agriculture & AICTE/1650613785	AICTE- ATAL FDP	Rs. 3,00,000/- &2 weeks	Completed
2	Student club under the scheme for Promoting Interests, Creativity and Ethics among Students (SPICES) & File No: 10-73/AICTE/IDC/SPICES/2020-21	AICTE	Rs. 3,00,000/- & 1 Year	Completed
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4	Finite Element Analysis using ABAQUS &Ref . N o. 3 4-66 / 67 / F DCISTTP/ P o I i cv -L / 2oI9 -20	AICTE-STTP	Rs. 3,15,000/- & 3 weeks	Completed
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15	Modernization of Microwave Engineering lab & F.No.9- I 97 IIDCIMODROB/Policy-| 12019-20	AICTE, MODROB	Rs. 5,59,216/- & 2 years	On - going
16	Research laboratory for power quality analysis and enrichment & File No. B-214IR.IFD,/RPS {POLICY-1)/2078	AICTE-RPS	Rs. 9,10,980/- & 3 years	On - going

17	Performance And Vibration Characterization Of Rubber Seed Oil Methyl Ester(Rsme) Bio-Diesel Based Vcr Engine MOUNTED ON AI6O51-SIC-RUBBER MOUNTS & File No. 8-38/FDclRPs (POttcY-l) l20L9-20	AICTE-RPS	Rs. 11,90,196/- & 3 years	On - going
18	Margdashan Initiative &F.No. 5B-41 /Margdarshak Cell/2020 -21	AICTE	Rs. 50,00,000/- & 3 Years	On-going
19	A Smart Agriculture Application Development for Monitoring the Fields Using IoT and AI & AI4E-2259-T5L7-21100407	Microsoft AI for Earth	Rs. 1,00,00,000/- & 3 Years	On-going
20	Skill and Personality Development Programme Center for SC/ ST Students SPDC & F; IIo. 65.26/IDC/SPDC/POLIC-1/2019-20	AICTE-SPDC	Rs. 15,13,400/- & 3 Years	On-going
20	Design and Development of Electrocoagulation unit for the processing of Electroplating waste water & F.No.8-23/FDC/RPS/POLICY-1/2021-22	AICTE-RPS	Rs. 17,50,000/- & 3 Years	On-going
21	Empowering Defense Applications with Advanced VLSI Dedsign AICTE/1691400399	AICTE-FDP	Rs. 3,00,000/- &2 weeks	On-going
22	Optimization and Automation of Movement of Filling Carrier in Handlooms. DST/SHRIC/SHRI-18/2022(G)	Department of Science & Technology (DST)	Rs.28,96,820/ - &3Years	On-going

8.Whether project activities require any clearance from relevant authorities in respect of any environmental/legal/ethical issues? No

9. Duration (months): 36 Months

10. Total Cost (in Rs): 68,02,840

(a) Recurring Cost (in Rs): 50,99,840

(b) Non-recurring Cost (in Rs): 17,03,000

Sl. No.	*Items*	*Budget (in Rs.)*			
		1st Year	*2nd year*	*3rd year*	*Total*
A.	Recurring				
1.	Manpower	8,33,280	8,33,280	8,33,280	24,99,840
2.	Consumables	2,00,000	1,50,000	1,50,000	5,00,000
3.	Travel	50,000	50,000	50,000	1,50,000
4.	Training Programme	3,00,000	2,50,000	2,50,000	8,00,000
5.	Other Costs	2,00,000	2,00,000	2,00,000	6,00,000
6.	Contingency	1,00,000	1,50,000	1,50,000	4,00,000
7.	Overheads	50,000	50,000	50,000	1,50,000
	Total (A)	17,33,280	16,83,280	16,83,280	50,99,840
B.	Non Recurring				

1.	Equipment	9,03,000	0	0	9,03,000
2.	Fabrication Costs	2,50,000	25,000	25,000	3,00,000
3.	*Construction Costs	4,50,000	50,000	0	5,00,000
	Total (B)	16,03,000	75,000	25,000	17,03,000
	Grand Total (A+B)	33,36,280	17,58,280	17,08,280	68,02,840

11. NGO Darpan ID (in case of NGOs/Private Academic Institutions):TS/2017/0154621

12. Unique Code in PFMS:TLML00000156

PART II – TECHNICAL DETAILS OF THE PROJECT

1. **Project Title:** Socio economic and livelihood development with Bamboo handicrafts for Babjhari tribes in Narnoor Mandal, Adilabad District, Telangana.

2. **Nature of Project:**

Technology development (new technology, new product/process)	
Adaptive R&D (Location Specific Research & Technology Development including Technology modification/modulation/ optimization, up/down scaling of existing systems, technology adaption/adoption etc)	
Technology transfer (field trials, demonstrations & transfer of technology)	√
Technology dissemination (Replication of successful models, deployment of mew and available technologies for identified problem)	
Others (Please specify)	

3. Implementing Organization(s):

Organisation	*Roles and Responsibilities*
Host Institution	Technology Transfer by training and implementation of the technology in the targeted area.
Collaborator(s)	--

4. Name of Principal Investigator, Co-Investigator and Affiliation (Please enclose copies of certificate of highest Qualification):

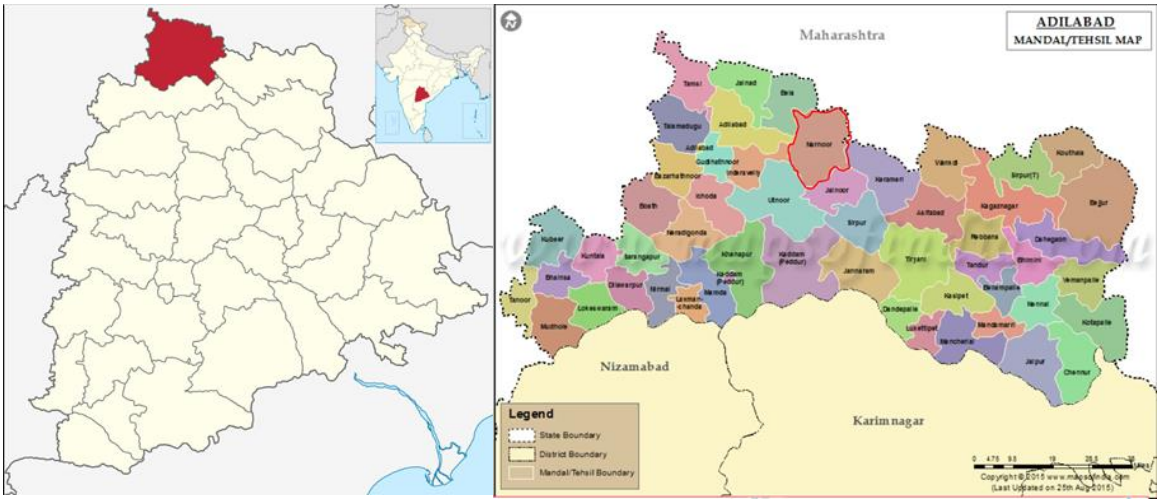
Principal Investigator	
Name	**Dr. P.Joel Josephson**
Organization	Malla Reddy Engineering College
Highest qualification & subject	Ph.D – Electronics and Communication Engineering -Embedded Systems
Relevant Experience for Project Implementation	
Co-Investigator	
Name	**Dr. J.Rex**
Organization	Malla Reddy Engineering College
Highest qualification & subject	Ph.D - Civil Engineering
Relevant Experience for Project Implementation	
Co-Investigator	
Name	**Dr. S. Jagadeesh Babu**
Organization	Malla Reddy Engineering College
Highest qualification & subject	Ph.D, Applied Sciences (Nanotechnology)
Relevant Experience for Project Implementation	
Co-Investigator	
Name	**Dr. V.Ramu**
Organization	Malla Reddy Engineering College
Highest qualification & subject	Ph.D -Software Engineering
Relevant Experience for Project Implementation	

Co-Investigator	
Name	**Mr. P.Rajasekhar Reddy**
Organization	Malla Reddy Engineering College
Highest qualification & subject	M.Tech - Communication Systems
Relevant Experience for Project Implementation	
Co-Investigator	
Name	**Mr.V. Vinod Kumar**
Organization	Malla Reddy Engineering College
Highest qualification & subject	M.Tech - Mine planning
Relevant Experience for Project Implementation	
Co-Investigator	
Name	**Mr.P.Uday**
Organization	Malla Reddy Engineering College
Highest qualification & subject	M.Tech- Computer Science and Information Security
Relevant Experience for Project Implementation	

5. Profile of the Project Area:

(a) Target area selected for project implementation (give the name(s) of villages, name(s) of the block, name(s) of the district and name of the State)

The target area selected was Babjhari Village in Narnoor Mandal of Adilabad District in the state of Telangana. Geographical location of the targeted area 19.5196597° N, 78.7991188°E



Adilabad District in Telangana State Narnoor Mandal in Adilabad District

Babjhari Village in Narnoor Mandal of Adilabad District in Telangana State.

(b) Give details of geographical area, climate, land use pattern & cropping patterns, availability of natural resources & raw materials (relevant to project interventions)

Geographical Area:

The Babjhari settlement's location code or village code is 569235, according to data from the 2011 Census of India. Babjhari village is located in Narnoor mandal of Adilabad district in Telangana, India. It is located 54km from the district headquarters in Adilabad and 14km from

the tehsildar office in the sub-district of Narnoor. According to data, Babjhari village also has a gram panchayat.

Climate:
The minimum and maximum temperature in the village ranges from 15ºC to 25ºC in winter and 35ºC to 42ºC in summer. The average mean rainfall of Babjhari village in Narnoor Mandal is 1152mm. The highest rainfall of 312mm received in the Narnoor region on 05.08.2006 in 24 hrs.

Land Use Pattern:
Total area of Babjhari is 553 Hectares. Total agricultural area of Bhbjhari is 95.4 Hectares. About 95.4 Hectares is un-irrigated area, 249 Hectares is in non-agricultural use and 9.1 Hectares is cultivable waste land.

Cropping Pattern:
In the Kharif season, the main crops cultivated are paddy, Jowar, green gram and Red Gram. In the Rabi season the main crops are maize and Bengal gram in the Babjhari village.

Natural Resources and Raw Materials:
Babjhari village is located in the Narnoor mandal of Adilabad district. This Adilabad district has the availability of Agriculture, cropping pattern, irrigation, horticulture, Sericulture, Livestock, Dairy development activity, Sheep and Goat rearing, forest Resource. Mineral Resources like, Coal, Limestone, White clay, manganese, Sand(Stowring) are available in this district.

(c) Demographic details and Socio-economic profile – as per 2011 census (details on livelihood and livelihood systems of ST of total population in project area)
The settlement has a total land area of 553 hectares. There are 745 people living in Babjhari in total, 346 of them are men and 399 of them are women. Babjhari village has a literacy rate of 42.82%, with 49.71% of men and 36.84% of women being literate. Babjhari village has roughly 144 homes. Babjhari Village's locality pin number is 504311. Adilabad is nearest town to babjhari for all major economic activities, which is approximately 54km away.

Particulars	Total	Male	Female
Total No. of Houses	144	-	-
Population	745	346	399
Child (0-6)	138	72	66
Schedule Caste	0	0	0
Schedule Tribe	740	343	397
Literacy	52.55 %	62.77 %	44.14 %
Total Workers	193	162	31
Main Worker	144	-	-
Marginal Worker	49	36	13

(d) Indigenous Knowledge (IK)/Traditional Knowledge (TK), Skill and Practices (Community Knowledge and availability of IK skills/TK skills, Details of existing special skills/trades, including art, craft etc. of the target population)

In Babjhari village out of total population, 193 are engaged in work activities. 74.6% of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 25.4%

are involved in Marginal activity providing livelihood for less than 6 months. Of 193 workers engaged in Main Work, 113 are cultivators (owner or co-owner) while 19 are Agricultural laborers.

Particulars	Total	Male	Female
Main Workers	144	126	18
Cultivators	113	109	4
Agriculture Labourer	19	9	10
Household Industries	2	1	1
Other Workers	10	7	3
Marginal Workers	49	36	13
Non-Working	552	184	368

(e) Whether the project location/target area falls under aspirational district?

Yes, the project location falls in aspirational district (Adilabad district in Telangana State).

6. Baseline data sheet of the target area/target population which may be assessed annually with respect to results and deliverables during implementation of the project activities (for example: if it is to improve livelihood opportunities through improved agriculture practices, what are the current agriculture practices, details of soil conditions, crop productivity and disease management etc.) – please give as many details/parameters as possible. Briefly provide as much quantitative information on the existing conditions that support the need for implementing the proposed project.

a. Demographics:

- **Total population of Scheduled Tribal (ST) people in Babjhari** - 740
- **Age distribution** - The population of Children aged 0-6 years in Babjhari village is 138 which is 19% of the total population.
- **Gender distribution**- 343 Male and 397 Female
- **Number of households** - 144 House Holds are there in Babjhari Village
- **Educational level of the population** - Literacy Rate of Babjhari village is a mere 52.55%. Babjhari village has a lower literacy rate compared to 54.1% of Adilabad district.

b. Livelihood and Income:

- **Current sources of income for households**-In Babjhari village out of total population, 193 are engaged in work activities. 74.6% of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 25.4% are involved in Marginal activity providing livelihood for less than 6 months. Of 144 workers engaged in Main Work, 113 are cultivators (owner or co-owner) while 19 are Agricultural labourers. The main source of income of the households in Babjhari village is Cultivation.
- **Average house-hold income** - The average income of each house hold is around less Rs. 50,000 per year.
- **Dependence on agriculture as a source of income** - 68.4% people depend on agriculture as the source of income.

c. Health:

- **Access to healthcare facilities** - No primary Health Care Center is available in Babjhari village. They have to go the nearby town Narnoor for medical fecilitites.
- **Common health challenges in the community** -

d. Infrastructure:

- **Availability of electricity and clean water supply** - Electricity is available, clean water is not available
- **Housing conditions** - The houses in this community are characterized by plastic roofs with stones kept on them. The use of plastic as roofing material reflects the limited resources and economic constraints of the them. The plastic roofs, while affordable, are highly vulnerable to damage and displacement during strong windstorms or adverse weather conditions.
- **Road connectivity and transportation facilities** - Road connectivity is there to Babjhari. There is no railway station near to Babjhari in less than 10 km.

e. Access to Education:

- **Literacy rates:** Literacy Rate is around 52.55% according to census 2011 and it is less than the literacy rate 54.1% of Adilabad district.
- **School attendance rates for children:** Only 50% of the children are going to school
- **Availability of educational infrastructure** - One anganwadi school is there for children below 5 years. Children need to go to Narnoor that is located 5km away from Babjhari to study.

f. Agriculture Practices -

- **Types of crops cultivated** - People in Babjhari village cultivate mostly the cereal type (eg - Jowar, Maize) and pulse type (eg - Green gram, Red gram, Bengal gram)
- **Crop rotation practices**- They cultivate Jowar, green gram and Red Gram in Kharif season and maize, Bengal gram in the Rabi season.
- **Use of modern farming techniques and machinery** - People in Babjhari village follow traditional farming techniques only. They are not aware of the modern farming techniques.

7**. Details of the target beneficiaries (direct and indirect)**

(a) Name of the Scheduled Tribe: Gonds
(b) Total Beneficiaries: 745
(c) Number of ST Beneficiaries: 740
(d) Direct ST Beneficiaries: 300
(e) Indirect ST Beneficiaries: 440
(f) % of total ST beneficiaries out of total beneficiaries: 99.33

8. Statement of the problem:

i. State the main problem you seek to address:

The main problem that we are proposing to address is the socio-economic underdevelopment and marginalization of the Scheduled Tribes (ST) in Babjhari Village. This community faces various interconnected challenges, including:

Low Socio-Economic Status: ST communities in Babjhari Village experience poverty and limited access to economic opportunities, resulting in a low socio-economic status.

Limited Access to Education and Healthcare: ST children and families face barriers to accessing quality education and healthcare services, leading to lower educational attainment and health disparities.

Unemployment and Lack of Skills: The ST youth in the village lack the necessary skills and opportunities for employment, leading to high rates of unemployment and underemployment.

Limited Income-Generation Opportunities: The lack of sustainable income-generation opportunities for the ST community perpetuate poverty and economic dependency.

The people in the village have the opportunity to work for 6 months in a year. The remaining six months they are idle. So, in order to improve the economic status get regular income, this project will be useful.

ii. Who has this problem, where does it occur?

This problem is there in all the scheduled tribes (ST). But we are intended to concentrate on the Scheduled tribes that located in Babjhari village, Narnoor Mandal, Adilabad District, Telangana.

iii. How did you come to know of this, did the people who have problem approach you or you visualized it yourself?

We have visualized situation after talking to the people from the nearby villages of Babjhari and also talked to the people of Babjhari.

iv. Why is it important to solve it?

Solving the problem of socio-economic underdevelopment and marginalization of the Scheduled Tribes (ST) is important for several compelling reasons:

Promotion of Social Justice: Addressing socio-economic underdevelopment and marginalization is essential for upholding principles of social justice and ensuring that all segments of the population have equal opportunities and rights. It helps rectify historical injustices and discrimination faced by ST communities.

Reduction of Poverty and Inequality: ST communities are often among the most economically disadvantaged in many countries. By improving their socio-economic status, we can significantly contribute to poverty reduction and a more equitable society.

Economic Growth and Development: Inclusive development that involves all sections of the population can contribute to overall economic growth and development. ST communities, when provided with opportunities, can also contribute to the economy.

Human Rights and Dignity: All individuals, regardless of their ethnicity or tribal affiliation, have the right to a decent standard of living, access to education, healthcare, and opportunities for self-improvement. Addressing socio-economic underdevelopment upholds these basic human rights.

Cultural Preservation: Many ST communities have unique cultures, languages, and traditional knowledge systems. By improving their socio-economic status, we help protect and preserve these valuable cultural heritages.

9. Technology gaps & Suggested solution:

(Describe how the proposal will lead to a novel and effective solution, based on a scientifically and technically sound concept and keeping in view the user needs and local availability of resources)

Technology plays a crucial role in addressing the socio economic challenges faced by the Scheduled Tribes (STs) in Babjhari Village, Telangana. By identifying technology gaps and proposing solutions, we can leverage digital innovations to enhance education, healthcare, agriculture, and income generation opportunities

Gaps:

Outdated Practices: The beneficiary's traditional bamboo handicrafts production has not developed till now. ST farmers still rely on traditional farming techniques (farming using manual methods) limiting agricultural productivity.

Market Access: Lack of access to markets and price information affects farmers' income and handicrafts income.

Limited Access to Digital Skills: ST youth lack in digital literacy and skills for online job opportunities.

Access to Financial Services: The beneficiary have limited access to banking and financial services.

Suggested Solutions:

Mechanization on Traditional Practices: The involvement of modern machinery for bamboo slicing, cutting, splitting can be used to increase the productivity in less time. Introduce modern farming machinery and equipment, such as tractors and irrigation systems, to increase agricultural productivity.

Market Information: Awareness on e-marketing which provides real-time market prices.

Digital Literacy Programs: Implement training programs for ST youth on digital skills, including computer literacy and online job hunting.

Digital Financial Services: Promote the use of mobile banking and digital financial services to enhance financial inclusion among the community.

i. **Outline your idea or solution you plan to develop:**

Babjhari Village in Telangana is home to a significant population of Scheduled Tribes (STs) who face multifaceted challenges related to socio-economic development and livelihood. This project proposal aims to address the challenges by implementing a comprehensive development program designed to uplift the ST community in Babjhari Village. The project focusses on skill development through usage of modern techniques in bamboo and agricultural technology, primary healthcare and income generation opportunities to improve the overall quality of life of the beneficiaries.

ii Did you think up the technological solution within your team or was it thought up in consultation with others (who):

The technological solution is thought up within our team

10. Review of Status/Earlier Works and/or Initiatives:

(Are you aware of any other initiatives related to proposed activities to solve this problem? What were the outcomes?)

Babjhari Village, located in the state of Telangana, India, has witnessed several initiatives and developmental works undertaken by both the Telangana State government and the Central government. These initiatives have aimed to address a wide range of challenges faced by the local community, with a focus on socio-economic development, infrastructure improvement, and welfare of Scheduled Tribes (STs) residing in the region. Here's a review of the status of these earlier works and initiatives:

Telangana State Government Initiatives:

Education: The Telangana government has made strides in improving the educational infrastructure in Babjhari Village, but only one anganwadi is established.

Healthcare: The state government has implemented health programs in the village, including health camps, awareness campaigns, and the provision of essential medicines. While these initiatives have had a positive impact on the community's health, there is a need for a sustained healthcare infrastructure, especially for addressing long-term health issues.

Livelihood Enhancement: The government has introduced schemes and programs to boost livelihoods in the village. Initiatives include the distribution of seeds, farm equipment, and subsidies for agriculture. Nevertheless, there is room for expanding these programs and ensuring that they lead to sustainable income generation.

Community Empowerment: Efforts have been made to promote community cohesion and social empowerment among STs. Village-level meetings and panchayat participation are encouraged. However, more focused efforts may be needed to ensure that STs have a greater say in local governance and decision-making.

Central Government Initiatives:

There is a Lack of awareness in the community about the initiated schemes.

1. Pradhan Mantri Awas Yojana (PMAY)

2. MGNREGA

3. Tribal Development Programs.

In summary, both the Telangana State government and the Central government have taken significant steps to improve the socio-economic conditions of Babjhari Village and the livelihood of its Scheduled Tribes. While progress has been made, there remains a need for continued efforts and a more targeted approach to address the specific challenges faced by the community. Strengthening education, healthcare, sustainable livelihood, and community empowerment programs are essential for the long-term development of the village and its residents.

11. Objectives:

1. To elevate the socio-economic status of the Scheduled Tribes residing in Babjhari village.
2. To train the Gonds on new tools and technologies in making bamboo handicrafts.
3. To enhance the healthcare facilities and infrastructure for ST community.
4. To empower the beneficiaries with improved income generation.

12. Methodology:

(Describe how the project will leverage livelihood/economic opportunities and solve the challenges in a sustainable way. Also explain how, and in what way, the project will contribute to the advancement of knowledge and STI Capacity building of the beneficiaries. Support with defined steps/relevant process details, e.g. flow chart, model, survey procedures, protocols, engineering design/schematic/layout plan - as applicable to achieve the stated objectives)

The project helps in improving the livelihood of the people living in the tribal community by making them expertise in the following methods:

- To impart efficient training to the beneficiaries in making bamboo handicrafts with the recent advancements.
- To conduct awareness camps on First Aid in case of emergencies like Snake bite, heart stroke, water drowning or any such other unforeseen incidents.

(i) Technology Selection (State the criteria used for selection of technology for addressing key problem(s) and the assessment of available technologies related to the project)

1. Bamboo Technologies:

Treatment of dry bamboo: In order to improve the life span, the Bamboo can be treated with the oil type (Coal tar creosote), water soluble type (Copper Chrome Arsenic, Copper Chrome Boric; Boric acid and Borax) and organic solvent type (Copper/Zinc Naphthanate, Copper/Zinc abietate etc) of preservatives.

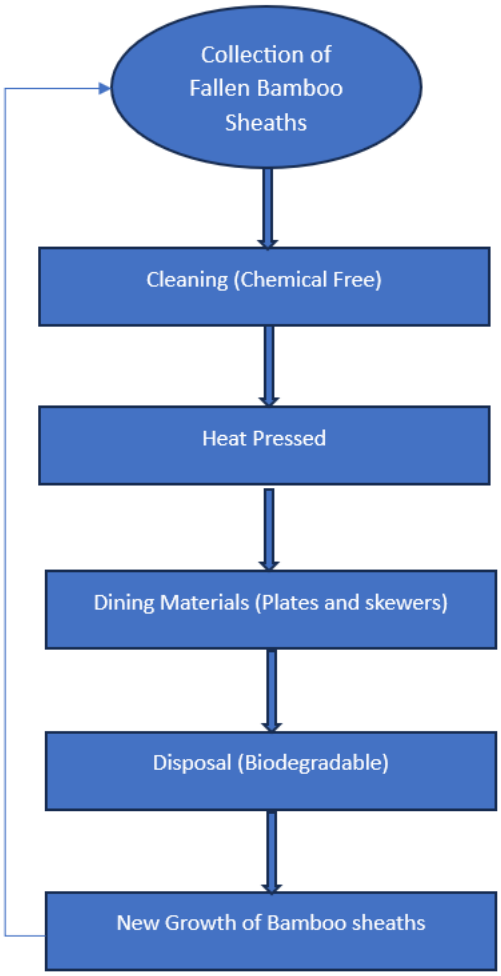
Dipping Method: However, if the bamboos are used in the open and in the contact with the ground and if they are round, a hot dipping method (2 hours) or open tank method (4-6 hours) or pressure (1 hour) method is used.

Pressure Treatment: When the treated material needs to be put in the most hazardous places, maximum absorption of the preservative is desired. For this purpose, the Full cell-process or Vacuum pressure impregnation method is followed. In this method an initial vacuum is created. Preservative is introduced into the cylinder. Pressure up to 3 to 12.5Kg/cm^2 will be applied. Depending on the species and the time period the bamboo needs to survive; the treatment schedule needs to be calculated. After the required time period the preservative is withdrawn and a final vacuum for a short period is applied. Then the bamboo is removed from the treatment cylinder after the dipping of the preservatives is stopped. Then the bamboo is kept for fixation for a period of 3-4 weeks. After that the treated bamboo can be put into use.

Treatment of green bamboos It is not easy to treat bamboos conventionally as they are refractory to treatment. They resist the entry of preservatives; it is because of the structure of bamboo. Bamboo is divided into nodes and internodes. The tissue is made of parenchyma cells and vascular bundles. The latter consists of vessels, thick-walled fibres and a sieve tube. The water movement takes place through a vessel. Bamboos have no radial elements like rays in wood. Outside and inside membranes are covered by hard cuticles, which offer considerable resistance to absorption of water particularly when dry even after the application of pressure. The node and internodes anatomical features explain the refractory nature of bamboo. This has made it possible to explore other methods of conventional pressure treatment.

Diffusion process: This is the best and simplest process for the treatment of green, round or split bamboo wherein the materials (3 to 4 years old) are submerged in preservative solution sufficiently to obtain adequate absorption in quantity and depth. In fact, this method could be universally specified for the treatment of bamboos for all purposes because of requiring little equipment and technical knowledge.

FLOWCHART FOR THE PREPARATION OF BAMBOO PLATES



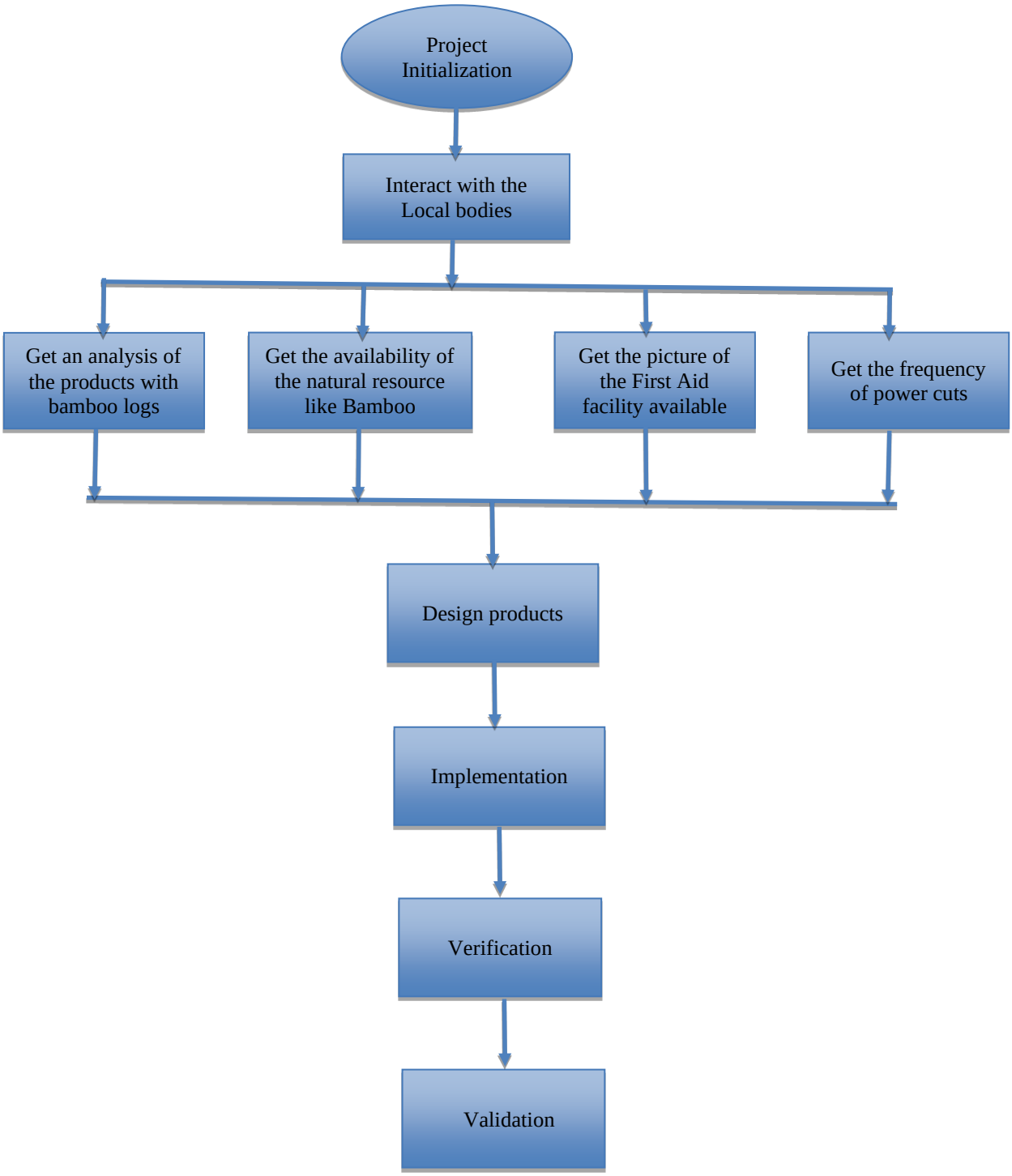
Technologies for First Aid

There are a number of elements to include when planning a first aid training program for a particular workplace. These recommendations are based on the best practices and evidence available at the time this guide was written. Statistical information is available from BLS to help assess the risks for specific types of work.
Program elements to be considered are:

1. Teaching Methods Training programs should incorporate the following principles:
■ Having trainees develop "hands-on" skills through the use of mannequins and partner practice
■ Having appropriate first-aid supplies and equipment available;
■ Exposing trainees to acute injury and illness settings as well as to the appropriate response through the use of visual aids
■ Including a course information resource for reference both during and after training
■ Allowing enough time for emphasis on commonly occurring situations
■ Emphasizing skills training and confidence-building over classroom lectures
■ Emphasizing quick response to first-aid situations

2. Preparing to Respond to a Health Emergency The training program should include instruction or discussion in the following:
■ Prevention as a strategy in reducing fatalities, illnesses and injuries;
■ Interacting with the local EMS system;
■ Maintaining a current list of emergency telephone numbers (police, fire, ambulance, poison control) accessible by all employees;
■ Understanding the legal aspects of providing first-aid care, including Good Samaritan legislation, consent, abandonment, negligence, assault and battery, State laws and regulations;
■ Understanding the effects of stress, fear of infection, panic; how they interfere with performance; and what to do to overcome these barriers to action;
■ Learning the importance of universal precautions and body substance isolation to provide protection from bloodborne pathogens and other potentially infectious materials. Learning about personal protective equipment -- gloves, eye protection, masks, and respiratory barrier devices. Appropriate management and disposal of blood-contaminated sharps and surfaces; and awareness of OSHA's Bloodborne Pathogens standard.

3. Assessing the Scene and the Victim(s) The training program should include instruction in the following:
■ Assessing the scene for safety, number of injured, and nature of the event;
■ Assessing the toxic potential of the environment and the need for respiratory protection;
■ Establishing the presence of a confined space and the need for respiratory protection and specialized training to perform a rescue;
■ Prioritizing care when there are several injured;
■ Assessing each victim for responsiveness, airway patency (blockage), breathing, circulation, and medical alert tags;
■ Taking a victim's history at the scene, including determining the mechanism of injury;
■ Performing a logical head-to-toe check for injuries.



Flow Chart for the Project

(ii) Technology Development/Adoption/Modification as applicable (Provide information on the new R&D/adapted R & D to be carried out for technology development/adoption/ modification and brief description of the technology or package(s) to be used. Information should be provided on the scale of operation, minimum economic viable scale, estimated cost and likely benefits of the proposed technological intervention):

Domain	Bamboo	First Aid	Solar Panel
Scale of operation	Preparing the handicrafts from bamboo	Utilizing the first aid to the people in rural area	Giving the continuous power supply
Minimum economic viable scale	Medium Scale	Small Scale	Large Scale
Estimated cost	Rs. 1,00,000	Rs. 20,000	Rs.10,000
Benefits	Advanced machinery and equipment made bamboo processing more efficient in terms of cutting, slicing, splitting and laminating	First aid training provides participants with the knowledge and skills to perform lifesaving interventions, such as CPR (Cardiopulmonary Resuscitation), controlling bleeding, and stabilizing injured individuals until professional medical help arrives.	Giving continuous power supply

(iii) Institutions/places where detailed lab/field testing or experiments will be carried out:

NA

(iv) Source of Technology:

Source	Name of agency/institution/individual
Generated in-house by staff	Institution
Generated in-house by employing outside experts	No
Borrowed from an outside institution/expert	No
Modification of technology/know-how being used by the beneficiaries	No
Any other (please specify):	

13. Work Plan

(i) Phase wise work plan of action with objectives, timelines and deliverables in tabular form
(ii) Time schedule of activities (in Gantt chart)
(iii) Organization of work elements

Detailed Plan of the Project Activities for the way forward													
Sl. No.	Name of the Activity	Months/Years											
		1st Year				2nd Year				3rd Year			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Training on Bamboo Cutting												
2	Training on Bamboo Shaping												
3	Training on Bamboo Finishing												
4	Implementation of Recent advancements bamboo												
5	Creating Awareness on First Aid Measures												

14. Details/Mechanism for the involvement of ST Population in the project. (Please indicate how mobilization & participation of beneficiaries in the project work will be ensured)

- **To increase the lively hood of the ST people in that place is to increase their productivity of wooden slicing**

Designed and built a bamboo-slicing machine that was suggested. This device is capable of cutting bamboo in a variety of ways, including crosscutting and splitting and slicing. Therefore, the main goal of this project is to create a special machine that can carry out all the activities. The bamboo plant is incredibly beneficial to both humans and animals. This plant can be used to produce toys, musical instruments, hotels, tea shops, furniture for homes, and other decorative products. This device can split bamboo longitudinally, producing a number of slices. The table, motor, base, and hardened and ground chisels are this machine's essential components.
Slicer Blades, Splitting Bamboo, Slicing Bamboo, Decoration Works

We specialize in producing bamboo processing equipment that has been specifically created to transform bamboo into a material that is suitable for use in furniture, handicrafts, and other products. The equipment we employ in current technology are renowned for their accuracy, energy efficiency, user friendliness, and ease of handling. The variety of machinery supplied includes Bamboo Cross Cutting machinery, Splitting Machines, Slicing Machines, Round Stick Making Machines, Stick Sizing Machines, Stick Polishing Machines, Slicing Machines, and more. These machines are extensively utilized in the processing of bamboos.
All of our equipment is used extensively in the manufacture of furniture, baskets, and other handicrafts, among other things. Both humans and animals can benefit greatly from bamboo. This device can split bamboo longitudinally, producing a number of slices.

- **To create awareness among them of first aid of medical**

In any community, mothers and children comprise a priority group, together comprising of nearly 59% of the population. Children under 15 years comprise nearly 40% of the total population.1 The woman's role in the family in the Indian context is multidimensional. Women provide maximal care in the family as far as health is concerned. Women are considered to be the best teachers and have potential influence on the family members, particularly the children.

They also have high degree of tolerance and capacity to work. Women involvement can comparison between urban and rural areas with regard to health facilities has shown that urban areas have 4.48 hospitals, 6.16 dispensaries and 308 beds per lakh urban population as compared to 0.77 hospitals, 1.37 dispensaries, 3.2 primary health centers and 44 beds per lakh rural population.5 The per capita expenditure on public health is 7 times lower in rural areas as compare to government health spending for urban areas.6 This reflects the striking inequity in terms of health that exists between the urban and rural areas in the country.7 This study therefore aims to assess the knowledge of first aid among mothers of children less than 15 years of age in a rural area and to subsequently conducted an appropriate training program to study their different aspects of knowledge regarding first aid.

15. Involvement of bodies/institutions of local governance in the project

The local Government bodies like village panchayat officer and the District Collector are given importance in conducting and implementing the project.

16. Science & Technology component/Innovativeness/Novelty of the project.

USING OF BAMBOO SLICING MACHINES TO INCREASE THEIR ECONOMY AND LIVELIHOOD

- Implementing a slicing machine tailored for bamboo, making cuts precise and fast.
- Also, automating traditional handcrafting to boost productivity and improve quality.
- Bamboo, as a construction material, stands out due to its remarkable lightness compared to traditional options like steel, concrete, or bricks. This inherent property of being lightweight makes bamboo e-asily transportable and manageable during construction proce-sses. As a result, labor and transportation costs are significantly reduced. The efficiency of bamboo cutting processes can be improved by implementing a specialized slicing machine. This implementation gre-atly expedites the workflow.
- The skewers used to hold- food items have become- incredibly popular. This presents a favorable- opportunity for villagers to create these skewers easily and increase their economy with the help of the government.

AWARENESS ON FIRST-AID TREATMENT

First aid training is a cost-effective, yet highly effective way to reduce morbidity and mortality.First aid education can save lives, prevent injuries and aid recovery and it plays an important role in health care and child safety.

- Developing interactive and visually appealing educational materials such as videos, posters and storytelling, makes first aid concepts more accessible and memorable.
- Conducting awareness sessions in local languages to overcome language barriers and increase understanding among local communities.
- Use local, relevant examples and case studies in first aid training to help communities engage with theory, making instruction more meaningful and practical.
- To encourage community members to become certified first aid educators, and to promote sustainable models of knowledge transfer in the community.
- Implement periodic follow-up support programs and refresher courses, to ensure that community members retain and use first aid skills effectively.

17. Expected Deliverables at the end of each year

- Technology Incorporation in Bamboo using modern machineries.
- Training on First aid measures.

18. Expected benefits to the target groups/population

- Replacement of plastic/steel roofs with permanent low-cost slabs.
- Increase their economy by making bamboo handicrafts and trading the crafts to the nearest cities.
- Awareness on primary health treatments under first-aid treatment.

The implementation of sub plan for socio-economic and livelihood development among the Babjhari tribals in Narnoor Mandal, Adilabad District is expected to bring about a range of benefits for the target population. While specific outcomes may vary based on the plan's details and local conditions, here are the potential expected benefits:

Enhanced Agricultural Productivity and Income:

Integration of modern agricultural techniques and technologies through the STI hub can lead to increased crop yields and improved farming practices, ultimately boosting the income of Babjhari tribal farmers.

Diversification of Livelihoods:

Introduction of innovative livelihood opportunities beyond traditional farming, such as agroforestry, horticulture, animal husbandry, or beekeeping, can diversify income sources and reduce dependency on a single livelihood.

Skill Development and Employment Generation:

Training programs and skill development initiatives provided by the STI hub can equip the Babjhari tribals with a diverse set of skills, enhancing their employability and enabling them to secure jobs both within and outside their community.

Entrepreneurship and Micro-enterprise Development:

The STI hub may facilitate the establishment of small businesses and micro-enterprises within the community, fostering entrepreneurship and contributing to local economic development.

Market Access and Value Addition:

The plan can facilitate better market linkages, allowing the Babjhari tribals to access broader markets for their produce. Value addition through processing and packaging can increase the value of their products and improve market competitiveness.

Improvement in Healthcare and Nutrition:

Economic growth and increased income can lead to better access to healthcare facilities and improved nutrition for the Babjhari tribal population, positively impacting their overall well-being and quality of life.

19. Give a brief description the social and economic impact the project will create in the livelihoods and livelihood system of target beneficiaries

However, this implementation provide a general understanding of how a socio-economic and livelihood development plan might impact a tribal community based on similar initiatives:

Improved Livelihood Opportunities:

·The STI (Science, Technology, and Innovation) hub sub plan may introduce modern techniques and technologies that enhance agricultural practices or other traditional livelihoods of Babjhari tribals.

·This could lead to increased productivity, higher incomes, and improved overall living standards for the tribal population.

Skill Development and Employment Generation:

·The plan might focus on skill development programs to empower the tribals with marketable skills, enabling them to access better job opportunities both within and outside their community.

·Creating local job opportunities through the STI hub can reduce unemployment rates and contribute to the economic growth of the region.

Entrepreneurship and Micro-Enterprise Development:

·The plan might encourage entrepreneurship among the tribals by providing training, financial support, and mentorship.

·This could lead to the establishment of small businesses, contributing to economic growth and fostering self-sufficiency within the community.

Access to Markets and Value Addition:

·The STI hub may facilitate better market linkages, helping tribals access broader markets for their produce or products.

·Value addition through processing and packaging could potentially increase the market value of their goods, resulting in better returns.

Sustainable Development and Environmental Conservation:

·The plan will emphasize sustainable practices to ensure the preservation of natural resources and the environment.

·By promoting sustainable livelihoods, the initiative can contribute to long-term economic stability while preserving the region's ecological balance.

Social Empowerment and Inclusion:

·The STI hub sub plan could foster social inclusion and gender equality by ensuring that both men and women have equal access to opportunities and benefits.

·Improved livelihoods can enhance the social status and empowerment of tribal communities within the larger societal framework.

20. Self-sustainability of the project after SEED Divisions project support is over:

Achieving self-sustainability for the socio-economic and livelihood development of the Babjhari tribals in Narnoor Mandal, Adilabad District after the SEED Division project support concludes is a critical goal to ensure the long-term success and prosperity of the community.

Sustainable socio-economic and livelihood development requires a holistic approach that not only considers economic aspects but also addresses social, environmental, and governance factors. Empowering the community and fostering self-sustainability will contribute to long-term prosperity and well-being for the Babjhari tribals beyond the initial project support.

21. Possibility of replication of project in similar areas (after the proposed technological solution is proven, how it will be scaled up or taken forward – whether by involving state government for large scale technology dissemination or via market or any other means - any entrepreneur or business person can be involved in any manner?):

This project is scaled up by the involvement of local bodies making the people benefitted with the resources coming out as an outcome from this project.

22. Parameters to be used for evaluation of the impact:
(in terms of expected output and outcomes – See Annexure VI for indicators for monitoring)

Pre-Intervention (Bench Mark)	Anticipated Outcome (likely deliverables)
Technology Incorporation in Bamboo	● Advanced machinery and equipment have made bamboo processing more efficient. This includes cutting, splitting, and laminating bamboo into various forms suitable for construction, furniture, and other applications. ● Advanced technology has enabled the development of bamboo composites, which combine bamboo fibers with other materials like resins or plastics. These composites are strong, lightweight, and durable, making them suitable for a wide range of applications, including automotive parts, furniture, and sporting goods. ● Bamboo is increasingly being used in construction due to its strength, flexibility, and sustainability. Advanced engineering techniques and software help design and construct bamboo structures, including bridges, buildings, and scaffolding, with precision and safety.
Training on First aid measures	● First aid training provides participants with the knowledge and skills to perform lifesaving interventions, such as CPR (Cardiopulmonary Resuscitation), controlling bleeding, and stabilizing injured individuals until professional medical help arrives. ● Prompt and effective first aid can significantly improve the chances of survival for individuals experiencing medical emergencies, such as heart attacks, choking, or severe injuries. ● First aid training emphasizes the importance of a rapid response to emergencies, which can make a crucial difference in critical situations. ● Widespread first aid training within a community can lead to increased community resilience in the face of disasters, accidents, and health crises.

PART III: BUDGET

BUDGET ESTIMATES – SUMMARY*
(The budget under different heads will be sanctioned as per the extant norms of DST)

Sl. No	*Item*	*Budget*			
		1st Year	*2nd Year*	*3rd Year*	*Total*
A	RECURRING				
1	Manpower	8,33,280	8,33,280	8,33,280	24,99,840
2	Consumables	2,00,000	1,50,000	1,50,000	5,00,000
3	Travel	50,000	50,000	50,000	1,50,000
4	Training Programs	3,00,000	2,50,000	2,50,000	8,00,000
5	Other Costs	2,00,000	2,00,000	2,00,000	6,00,000
6	Review Meeting by DST	1,50,000	1,50,000	1,50,000	4,50,000
7	Contingencies	1,00,000	1,50,000	1,50,000	4,00,000
8	Institutional Overheads	50,000	50,000	50,000	1,50,000
B	NON-RECURRING				
1	Permanent Equipment	9,03,000	0	0	9,03,000
2	Fabrication of Equipment	2,50,000	25,000	25,000	3,00,000
3	Construction Costs	0	0	0	0
TOTAL		30,36,280	18,58,280	18,58,280	67,52,840

A. RECURRING
1. BUDGET FOR MANPOWER

Sl. No.	*Designation*	*Budget (Rs)*			
		1st Year	*2nd Year*	*3rd Year*	*Total*
1.	Manpower JRF (2) (31,000+HRA 12%=34,720-00)	8,33,280	8,33,280	8,33,280	24,99,840
TOTAL		8,33,280	8,33,280	8,33,280	24,99,840

(Staff recruited for a project should be paid as per the norms and guidelines of the DST. The justification should contain the work allocation/functions of each project staff. Please refer to different OMs regarding salary structure of various categories of project staff available on DST Website)

2. BUDGET FOR CONSUMABLES

Sl. No	*Consumables*	*Budget (Rs)*			
		1st Year	*2nd Year*	*3rd Year*	*Total*

1.	Consumables	2,00,000	1,50,000	1,50,000	5,00,000
TOTAL					

(Detailed break up of consumables should be given)

3. BUDGET FOR TRAVEL

Sl. No	*Purpose*	*Budget*			
		1st Year	*2nd Year*	*3rd Year*	*Total*
1.	Project Logistics	20,000	20,000	20,000	60,000
2.	Field Activities	30,000	30,000	30,000	90,000
TOTAL		50,000	50,000	50,000	1,50,000

(Tentative budget to be proposed for two meetings a year – should cover the travel cost, accommodation and local field visits of 4-6 experts)

4. BUDGET FOR TRAININGS

Sl. No	*Description of Trainings/Awareness*	*Budget*			
		1st Year	*2nd Year*	*3rd Year*	*Total*
1.	Training Programme	3,00,000	2,50,000	2,50,000	8,00,000
TOTAL		3,00,000	2,50,000	2,50,000	8,00,000

5. BUDGET FOR OTHER COSTS

Sl. No	*Item*	*Budget*			
		1st Year	*2nd Year*	*3rd Year*	*Total*
1.	Other Costs	2,00,000	2,00,000	2,00,000	6,00,000
TOTAL					

(This head will cover costs for technology testing, field trials, deployment, patents etc)

6. BUDGET FOR CONTINGENCIES

Sl. No	*Item*	*Budget*			
		1st Year	*2nd Year*	*3rd Year*	*Total*
1.	Contingencies	1,00,000	1,50,000	1,50,000	4,00,000
TOTAL		1,00,000	1,50,000	1,50,000	4,00,000

(Should be for unforeseen costs)

7. BUDGET FOR OVER HEADS

Sl. No	*Item*	*Budget*			
		1st Year	*2nd Year*	*3rd Year*	*Total*
1.	Institutional overheads	50,000	50,000	50,000	1,50,000
TOTAL		50,000	50,000	50,000	1,50,000

B. NON-RECURRING

BUDGET FOR PERMANENT EQUIPMENT/STRUCTURES

Sl. No.	Item	Budget			
		1st Year	2nd Year	3rd Year	Total

1.	Equipment	9,03,000	0	0	9,03,000
2.	Fabrication Costs	2,50,000	25,000	25,000	3,00,000
3.	*Construction Costs	0	0	0	0
TOTAL		11,53,000	25,000	25,000	12,03,000

Note
(a) The tentative list of equipment should be given at the time of submission of proposals itself
(b) Detailed justification for each and every item of equipment should be given
(c) Bill of materials/estimate for fabrication and construction cost should be provided
*The budget under construction cost is only for low cost structures like Common Facility Centre and/or renovation or refurbishing of existing space and not for construction of new buildings or structures. Approval of such grant is at sole discretion of DST and as per extant GFR norms.

PART IV: DETAILS OF THE IMPLEMENTING INSTITUTE

1. Description of the implementing agency (ies)
(In case of Voluntary Organizations/NGOs and Private Institutes please enclose copies of Registration Certificate/Trust Deed, Memorandum of Association including By-laws and Mandate, Audited statement of accounts for the last three years, Annual Report including activity profile for last three years.)

1. Type of organization:

Type	Implementing Org.	Collaborator
Academic Institution	Malla Reddy Engineering College	
Research Organization		
S&T Council		
Voluntary Organization		
Other (please specify)		

2. Expertise available with the proposed investigating group/institution for implementing the project (describe briefly in not more than one page)

3. Infrastructure available land/building (including equipment).

Space Details (Incubation Space (Cubicles), Maker space, Conference Room, Meeting Rooms, and Other Facilities)**: 21,040 sq.ft**

List of Major Equipment

Civil Engineering				
S. No	Equipment	Particulars	Year of purchase	Cost (Rs)
1.	TriAxial Test	Top Loading Pad, Perspex, 38mm dia, Plain Perspex Disc 38 mm dia x 6 mm thick , Porous Stone 38mm dia x 6 mm thick , Sheath Stretcher for 38mm dia specimen	2014	1,87,500
2.	Digital Compression Testing Machine 2000Kn	Quality Engineering and Instruments	06-01-2016	3,15,939
3.	pan mixer constant drum rotating blade type electrically operated fitted with 5Hp 3phase ISI motor cap of 100kg	Quality Engineering and Instruments	23-11-2010	140000
4.	Hydraulic jump apparatus	Closed Circuit unit	2016	1,64,000
5.	Pelton wheel turbine	Closed Circut unit	2003	1,59,900
6.	Francis turbine	Closed Circuit unit	2003	1,80,600

Electrical and Electronics Engineering				
S. No	Equipment	Particulars	Year of purchase	Cost (Rs)
1	Rectifier	220V, 100A	06.11.2003	1,10,000

Electronics and Communication Engineering				
S. No	Equipment	Particulars	Year of purchase	Cost (Rs)
1	Spectrum Analyzer	0.15MHz to 1050MHz	23.02.2017	1,22,000

Computer Science and Engineering				
S.No	**Equipment**	**Particulars**	**Year of purchase**	**Cost (Rs)**

1	1 server	Intel core i7-9900k,16 GB RAM,8 TB Hard Disk,DELLMonitor,Mouse,Keyboard		
2	19 clients	i5-10400,8 GB RAM,1 TB Hard Disk,DELLMonitor,Mouse,Keyboard	2021	5,51,000/-

Information Technology

S.No	Equipment	Particulars	Year of purchase	Cost (Rs)
1	DESKTOP	Intel Core i3, 1 TB HDD,4GB RAM, 64-bit Processor	2019	

Mining Engineering

S.No	Equipment	Particulars	Year of purchase	Cost (Rs)
1	Anchorage test apparatus	Pull out of 50tonnes capacity	2016	169400
2	Tri axial strength testing apparatus	Rock Tri axial cell for testing rock samples of BX, NX cat no. Aim 211. constant pressure system for rocks pressure 160kg/cmsq, load frame motorised 3 speeds , proving ring	2019	256054
3	Uni axial strength testing apparatus	Uni axial compressive strength test machine with main frame with 100KN ring with 2 dial guages	2019	167785
4	Wifely shaking table	arrangement for seperating minerals of various densities	2016	265228
5	Froath flotation cell	for seperating the concentrate from crushed ore of 15microns size	2016	176818
6	Magnetic separator	Magnetic seperating of minerals arrangement	2016	160616

7	Roller crusher	Doublle smooth roller crusher 300mm dia x 200mm W	2016	280665
8	Grindability index apparatus	bond index mill 300mn ID X 300MM IL	2016	198000
9	Axial flow fan setup	Two axial flow fans with duct pipe	2015	513000
10	Direct Shear test apparatus	shear box 300mmx300mm x100mm, jack of 100KN, hydraulic hand pump, load guage 100kn, dial gauges 0.01x25mm	2019	151040
11	Mineral jig	arrangement for separating coal and iron ore waste	2016	136080
12	Centrifugal fan	fans with duct pipe	2015	183000
13	Electronic total station - 325	Horizon made Electronic total station 325 model	2006	278623
14	Electronic total station - 555	Horizon made Electronic total station 555 model	2008	221825

4. Whether the organization is implementing the EAT Module under PFMS?YES

ENDORSEMENT FROM HEAD OF THE INSTITUTE

It is certified that the project proposal titled "Socio economic and livelihood development with Bamboo handicrafts for Babjhari tribes in Narnoor Mandal, Adilabad District, Telangana".

1. Has not been submitted to any other agency/agencies for financial support
2. The scale of pay, allowance, etc. proposed are those admissible to persons of corresponding status employed in the Institute/University/NGO/Voluntary Organization, and are in accordance with the DST guidelines
3. It is agreed that any research outcome or intellectual property right(s) on the invention(s) arising out of the project shall be taken in accordance with the instructions issued with the approval of the Ministry of Finance, Department of Expenditure
4. The institute welcomes participation of **Dr. P.Joel Josephson** as the Principal Investigator and **Dr. J.Rex, Dr. S. Jagadeesh Babu, Dr.V.Ramu, Mr. P.Rajasekhar Reddy, Mr.V. Vinod Kumar & Mr.P.Uday** as the Co-Investigator for the project and that in the unforeseen event of discontinuance by the Principal Investigator, the Co-Investigator will assume responsibility of the fruitful completion of the project (with due intimation to DST).
5. In case the Principal Investigator (PI) leaves the Institution, the Co-Investigator (Co-I) will assume the charge of the Investigator for completing the Project with prior approval of DST.
6. The proposed equipment is not available with the Host Institution.

Signature of Executive Authority
of Institute/ University with Seal with date

Principal
Malla Reddy Engineering College
Maisammaguda, Dhulapally,
(Post Via Kompally), Sec'bad-500100

1. Signature of Principal-Investigator with place and date
   Dr. P.Joel Josephson 30/10/23 (Hyderabad)

2. Signature of Co-Investigator place and date
   i. **Dr. J.Rex** 30/10/23
   ii. **Dr. S. Jagadeesh Babu**
   iii. **Dr. V.Ramu** 30/10/23
   iv. **Mr. P.Rajasekhar Reddy** 30/10/23
   v. **Mr.V. Vinod Kumar**
   vi. **Mr.P.Uday** 30/10/23

Malla Reddy Engg College (A) Principal Secunderabad

ANNEXURE-II

CERTIFICATE FROM THE INVESTIGATORS

It is certified that

1. We agree to abide by the terms and conditions of the DST grant.
2. We did not submit this or a similar project proposal elsewhere for financial support.
3. We have explored and ensured that equipment and basic facilities will actually be available as and when required for the purpose of the project. We shall not require financial support under this project, for procurement of these items.
4. We undertake that spare time on permanent equipment will be made available to other users.
5. The proposed equipment is not available with the Host Institution
6. In case the Principal Investigator (PI) leaves the Institution, the Co-Investigator (Co-I) will assume the charge of the Investigator for completing the Project with prior approval of DST.
7. We understand that shifting of the sanctioned project from one institution to another institution due to change of the institution by the principal investigator/co-investigators is not allowed and is at sole discretion of DST, subject to submission of No Objection Certificate from the Host Institution by the PI.

We have enclosed the following materials.

Duly filled application form (complete with all Annexure)	
valid Registration Certificate/Trust Deed, MOA with Bye Laws, Annual reports & audited accounts of the organization for previous 3 years (only for NGOs)	
Letter of Support and tie up with S&T institutions – Mandatory for NGO'S	
Endorsement from Head of Institute and Certificate from Investigators (original)	

HYDERABAD, 12.10.2023.

1. Signature of Principal-Investigator with place and

2. Signature of Co-Investigator place and date

i. HYDERABAD 12.10.2023

ii. HYDERABAD 12-10-2023

iii. HYDERABAD 12-10-2023

iv. HYDERABAD 12-10-2023

v. Hyderabad 12-10-2023

vi. HYDERABAD 12-10-2023

ANNEXURE-III

BIODATA OF PRINCIPAL INVESTIGATOR

A. Name: Dr P JOEL JOSEPHSON

B. Date of Birth: 14-January-1984

C. Institution: Malla Reddy Engineering College, Maisammaguda, Dhulapally, Medchal

D. Whether belongs to SC/ST: No

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Tech	Jawaharlal Nehru Technological University Hyderabad	Electronics and Communication Engineering
2	M.Tech	Jawaharlal Nehru Technological University Hyderabad	Embedded Systems
3	Ph.D	Anna University	Embedded Systems

Professional career:

F. Award/Prize/Certificate etc. won by the investigator:

G. Publication (Numbers only) 21
Details of Papers, Books, General Articles, Patents if any

Papers:

1. Published a paper titled as "A Novel Algorithm for Real Time Framework in Multiprocessor Environment" Joel Josephson P &Dr.R.Ramesh in Design Automation for Embedded Systems(SCI) DOI: 10.1007/s10617-017-9195-7 ISSN 0929-5585. October 2017.
2. Published a paper titled as "A Novel Algorithm for Real Time Scheduling in Multiprocessor Environment" Joel Josephson P &Dr.R.Ramesh in Cluster Computing (SCI) DOI :10.1007/s10586-018-2083-5. ISSN 1386-7857. Febrauary 2018.
3. Published a paper titled as "Routing Path Selection and Data Transmission in Industry-Based Mobile Communications Using Optimization Technique" Joel Josephson P et al in "Wireless Communications and mobile Computing" (SCI), July 2022.
4. Published a paper titled as "IoT battery management system in electric vehicle based on LR parameter estimation and ORMeshNet gateway topology" Joel Josephson P et al in Sustainable Energy Technologies and Assessments Q1 Journal (SCI), August 2022.

5. Published a paper titled as “Classification of Multispectral image using Hybrid adapted crow search optimization based on learning techniques” Joel Josephson P et al in “Wireless Communications and mobile Computing” (SCI), September 2022.
6. Published a paper titled as “Medical Image Enhancement In Health Care Applications Using Modified Sun Flower Optimization” Joel Josephson P et al in “Wireless Communications and mobile Computing” (SCI), October 2022.
7. Published a paper titled as “Artificial neural networks-based improved Levenberg–Marquardt neural network for energy efficiency and anomaly detection in WSN” Joel Josephson P et al in “Wireless Networks” (SCI), March 2023.
8. Published a paper titled as “Computation Offloading for Image Compression in Mobile Edge Computing Using a Deep Belief Network Based on the Markov Approximation Algorithm” Joel Josephson P et al in “Mobile Networks and Applications” (SCI), in September 2023.
9. Published a paper titled as “Empowering Scientific temper through Cognitive learning among higher secondary students” Joel Josephson P et al in “International Journal of Early Childhood Special Education (INT-JECSE)” May 2022.
10. Published a paper titled as “Exploratory Data Analysis Based on Micro grids Generation for Control Communication and Monitoring via Wireless Sensor Network” Joel Josephson P et al in “IEEE Xplore” (Scopus), July 2022.
11. Published a paper titled as “Wireless Level Monitoring of Interfacing Two-Tank System through User Datagram Protocol” Joel Josephson P et al in IEEE Xplore, May 2023.
12. Published a paper titled as “Framework for Real Time Heterogeneous Multiprocessor System using DYTAS Algorithm” Joel Josephson P & Vaibhav Meshram in International Research Journal of Engineering and Technology (IRJET)., Volume: 06 Issue: 05. May 2019.
13. Published a paper titled as “A Survey of Trolley/Wheel Chair based Smart System for Exclusive Medical Applications” L.Subhashree, D.Sruthiraj, S.Vinitha, Joel Josephson in International Research Journal of Engineering and Technology (IRJET)., Volume: 03 Issue: 03. March 2018.
14. Published a paper titled as “Modified Round Robin Algorithm for Task Scheduling” Joel Josephson P & Matta Jagadeesh Chandra Prasad in International Journal for Recent Developments in Science and Technology December 2019.
15. Published a paper titled as “Real Time Scheduler Simulator Framework for Multi-Processor Embedded Application: A Review” P.Joel Josephson, Dr.R.Ramesh and C.Yaashuwanth. lnternational Conference on lnformation Technology, Electronics and Communications (ICITEC – 11) Hyderabad, India, November 29- 30, 2011.
16. Published a paper titled as “A Cluster based Scheduling Algorithm (CBSA) for Multiprocessor Systems” P.Joel Josephson, lnternational Conference on Intelligent Systems, Electrical Communication Technology (ICISECT – 21) Hyderabad, India, April 9-10, 2021.
17. Published a paper titled as “Soldier Health & Position Tracking System” P.Joel Josephson, MilaliyanSamantaray, Preethi Roshan, G. Rakesh. lnternational Conference on Smart Modernistic in Electronics and Communication (ICSMEC – 21) Hyderabad, India, July 2-3, 2021.
18. Published a paper titled as “Quadriplegics Wheelchair Control by Head Motion Using Accelerometer” P.Joel Josephson, G Shiva Kumar Reddy, S Sathish Kumar Reddy, S Rajitha. lnternational Conference on Smart Modernistic in Electronics and Communication (ICSMEC – 21) Hyderabad, India, July 2-3, 2021.
19. Published a paper titled as “Histogram Equalization-Based Techniques for Contrast Enhancement of Mri Brain Glioma Tumor Images: Comparative Study” P.Joel Josephson, K Kalpana, L Harshitha, D Sucharitha lnternational Conference on Smart

Modernistic in Electronics and Communication (ICSMEC – 21) Hyderabad, India, July 2-3, 2021.

20. Published a paper titled as “Time Quantum Scheduling Algorithm” P.Joel Josephson lnternational Conference on Smart Modernistic in Electronics and Communication (ICSMEC – 22) Hyderabad, India, March 28-29, 2022.
21. Published a paper titled as “Successive Interference Cancellation For MIMO-OFDM Systems” Dr P.Joel Josephson, A Akhila, B Chandrika, PRashanth Reddy, G Samuel. lnternational Conference on Smart Modernistic in Electronics and Communication (ICSMEC – 22) Hyderabad, India, March 28-29, 2022.

Patents:

1. Published a Patent titled “Synthesis of e-waste based on machine learning and artificial intelligence autonomous management system for smart for environment” with Number 202141044783A by Indian Government in October 2021.
2. Published a Patent titled “Designing a Robot with Di-electric material to work in High Voltage Electric Environment” with Number 202241013549A by Indian Government in March 2022.
3. Published a Patent titled “Smart Solar Celled Vehicle with Nano particles for efficient utilization of Renewable Energy Resource” with Number 202211015032A by Indian Government in April 2022.
4. Published a Patent titled “Nano Electronics based Solar Cells for efficient Performance of absorption of Solar Energy” with Number 202211013548A by Indian Government in April 2022.
5. Published a Patent titled “A Machine learning based approach to analyze the characteristics of various nano materials for understanding their molecular aspects” with Number 202241021302A by Indian Government in May 2022.
6. Published a Patent titled “Design of a Secure wi-Fi based Home Automation system using internet of things" with Number 202241027054A by Indian Government in May 2022.
7. Published a Patent titled “The Embedded Security Framework for the industrial internet of things (IIOT) and Cyber Security” with Number 202211030237A by Indian Government in June 2022.
8. Published a Patent titled “A Hybrid Digital Image processing techniques for object detection from complex background image” with Number 202241032151A by Indian Government in June 2022.
9. Published a Patent titled “Classification models of early detection and Prediction of Cancer with improved efficiency” with Number 202211052848A by Indian Government in October 2022.
10. Published a Patent titled “ML based oldage people health monitoring system” with Number 202211056721 by Indian Government in October 2022.
11. Published a Patent titled “Systematic Approach integrated with convolutional neural network for predicting the air pollution and air pollutants in industrial area” with Number 202211059592A by Indian Government in November 2022.
12. Published a Patent titled “Arduino based Water Trash Collector” with Number 202241076937A by the Indian Government in January 2023.

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
1	Empowering students for Monitoring their well-being in	DST	Rs. 21,80,000	Submitted

	health, cleanliness with IoT techniques TPN / 94459			

ANNEXURE-IV

BIODATA OF CO INVESTIGATOR (S)

A. Name: Dr.J.Rex

B. Date of Birth: 09-May-1986

C. Institution : Malla Reddy Engineering College, Secunderabad-500100

D. Whether belongs to SC/ST: No

E. Academic and professional career:

(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.E	RVS College of Engineering & Technology, Dindigul-624005, Affiliated to Anna University, Chennai, Tamil Nadu	Civil Engineering
3	M.E	Karunya University, Coimbatore, Tamil Nadu	Structural Engineering
4	Ph.D.	Anna University, Chennai, Tamil Nadu	Civil Engineering

Professional career:

F. Award/Prize/Certificate etc. won by the investigator: -Nil-

G. Publication (Numbers only) : 22 Publications

Details of Papers, Books, General Articles, Patents if any : 1 Patent Granted,

5 Patents Published

Papers Publications:

1. Rex J & Kameshwari B 2016, 'Studies on pumice lightweight aggregate concrete with quarry dust using mathematical modeling aid of ACO techniques', Advances in Materials Science and Engineering, Article ID 9583757, ISSN: 1687-8434 (SCI, Web of Science, Scopus)
2. Arul Gnanapragasam A., Krithika @ Anbudevi M., Rex J. and Mercy A, 2016, 'Damage Assessment of Structure's Based on Wavelet Technique', Advances in Natural and Applied Sciences, Vol.10(1) pg.38-47, ISSN: 1995-0772.

3. M. P. Karthik, Dr. V. Sreevidya, R. Kesavamoorthi, J. Rex "A General Review on Interlocking Paver Blocks", International Journal of Current Engineering and Scientific Research, Vol.4(2) pp 40-42, ISSN: 2394-0697.
4. J.Rex, J.Selwyn Babu, S.Pooja Sri Reddy, "Strength and Durability Aspects of
1. Bacterial Concrete", International Journal of Innovative Technology and Engineering, Vol.8(2S2) December 2018 pp 9-13, ISSN 2278-3075. (SCOPUS).
5. Vishvanath B J, J.Rex, "Use of Steel Slag as Course and Fine Aggregate in Porous Concrete Pavements", International Journal of Innovative Technology and Engineering, Vol.8(2S2) December 2018 pp 436-439, ISSN 2278-3075. (SCOPUS)
6. J.Selwyn Babu, J.Rex, "Experimental Investifgation on Lightweight Concrete Slabs", International Journal of Recent Technology and Engineering", Vol-7 (2S2), January 2019, pp 502-506, ISSN 2277-3878. (SCOPUS)
7. A.M.Satya Sravya, Dr.Rex Jesuraj, "Analysis and Design of RCC Structures against Blast Loads", International Journal of Innovative Research in Technology, Vol-6, July 2019, pp 132-139, ISSN 2349-6002.
8. S.N.Jaya Kumar, Dr.J.Rex, " Studies on Seismic Resistance of RCC Frames with and without Infill Walls", Journal of Applied Science and Computations, Vol-6, Issue-VI, June 2019, pp 1904-1912, ISSN 1076-5131.
9. Binimol Babu, J.Rex, "Pounding effects on Buildings under Seismic Loads" , International Journal for research in Applied Science & Engineering Technology, Vol.7, Issue XII, December 2019, pp 219-226, ISSN 2321-9653.
10. J.Rex, Sandeep, "Analysis Of Column Under The Blast Load By Using Conwep And Cel Methods", Solid State Technology, Vol 63, 2s, November 2020, pp 7043-7051, ISSN :0038-111X. (SCOPUS)
11. J.Rex, J Selwyn Babu, V Mary Florance, "Dynamic Analysis On Multistoreyed Building Using Etabs", Solid State Technology, Vol 63, 2s, November 2020, pp 5870-5879, ISSN :0038-111X. (SCOPUS)
12. J.Rex, A Vamsi Krishna, J Selwyn Babu, "Analysis And Design Of G+10 Multi Storey Building Using Etabs", Solid State Technology, Vol 63, 2s, November 2020, pp 5880-5894, ISSN :0038-111X. (SCOPUS)
13. J.Rex, M Vijay Harsha, J Selwyn Babu, "Effect Of Wind Load On Low, Medium, High Rise Buildings In Different Terrain Category", Solid State Technology, Vol 63, 2s, November 2020, pp 5826-5842, ISSN: 0038-111X. (SCOPUS)
14. J.Rex, P.Yugesh Reddy, J Selwyn Babu, "Analysis Of G+20 Rc Building In Different Zones Using E-Tabs", Solid State Technology, Vol 63, 2s, November 2020, pp 5811-5825, ISSN :0038-111X. (SCOPUS)
15. P.Monica, J.Selwyn Babu, J.Rex, "Dynamic Investigation Of RCC Flat Slab Structure Using Etabs", Solid State Technology, Vol 63, 2s, November 2020, pp 5167-5175, ISSN:0038-111X.(SCOPUS)
16. Rex J, A. S. Dilip Kumar, J. Selwyn Babu, "Seismic Analysis Of Multi Storey Building With And Without Hanging Columns", Journal Of Mechanics Of Continua And Mathematical Sciences, Vol.-15, No.-9, September 2020, pp 31-41, ISSN: 2454-7190. (till September 2020 in Web of Science).

17. J.Selwyn Babu, J.Rex, K.Bhanu Prakash, S P Raju, “Studies on the seismic behavior of Setback Building”, IOP Conf. Series: Materials Science and Engineering, Vol.1091, Feburary 2021, Article id 012043, (SCOPUS).
18. J.Selwyn Babu, J.Rex, V.Priya Reddy, M.S.Britto Jeyakumar, “ Comparitive study on non-linear time history analysis of a building with and without base isolation using ETABS”, IOP Conf. Series: Materials Science and Engineering, Vol.1091, Feburary 2021, Article id 012029, (SCOPUS).
19. J.Rex, Allam Aravind Kumar, J.Selwyn Babu, “Experimental Study on Durability property on Geopolymer Concrete by using Metakaolin and M.Sand”, Indian Journal of Natural Sciences, Vol.12, Issue 70, February 2022.,pp. 37796-37803, ISSN: 0976-0997. (Web of Science)

20. J.Selwyn Babu, Santhosh Varma, J.Rex, “Analysis of Reinforced Concrete Structures Beams-Columns Joints using Finite Element Modeling’s”, Indian Journal of Natural Sciences, Vol.12, Issue 70, February 2022, Pp 38479-38789 ISSN: 0976-0997. (Web of Science)
21. Dr. G. Prabhakaran, Dr. J. Rex, Durga Chaitanya Kumar Jagarapu, “IOT in Civil Engineering”, NeuroQuantology, Vol.20, Issue 10, August 2022, Pp:5557-5566, ISSN:1303-5150. (Scopus).
22. Dr.J.Rex, Wilfred Rohit Peters, “Nonlinear Analysis of Reinforced Concrete Column using ANSYS”, NeuroQuantology, Vol.20, Issue 16, December 2022, pp:5756-5764, ISSN: 1303-5150 (Scopus).

Patents Filed:

Sl. No.	**Name of the Patent**	**Application No.**	**Published/ Granted Date**
1.	Artificial Intelligence Based Eyewear for Partially Blind Person	**6309602**	**19-Sep-2023 GRANTED**
2.	A Smart and Safety Enabled Automated Concrete Mixture to suit the needs of various types of buildings (Processed for getting Grant)	202241022415	Published 29/04/2022
3.	The Influence of Different Treatments applied to FLAX Fibres on different properties of Mortar Reinforced by these Fibres	202141028760	Published 09/07/2021

4.	Study on the influence of Terrazyme as a Strengthening agent for Black Cotton Soil	202041052023	Published 11/12/2020
5.	An efficient device and a methodology to identify the quality of construction Materials	202041006605	Published 15/02/2020
6.	System to collect air pollutant from exhaust of a vehicle and further generates oxygen.	201841020231	Published 28/05/2018

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
	-Nil-			

ANNEXURE-IV

BIODATA OF CO INVESTIGATOR (S)

A. Name: Dr. S Jagadeesh Babu

B. Date of Birth: 11-05-1985

C. Institution : Malla Reddy Engineering College

D. Whether belongs to SC/ST: No

E. Academic and professional career: (From Graduation to highest qualification l
evel indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Sc.	Kakatiya University	Computer Science
2	M.Sc	Kakatiya University	Physics
3	M.Tech	JNTU Hyderabad	Nanotechnology
4	Ph.D.	Visvesvaraya Technological University	Applied Sciences (Nanotechnology)

Professional career:

F. Award/Prize/Certificate etc. won by the investigator:
1. Best Poster Award in international conference
2. Best Oral Presentation award in international conference

G. Publication (Numbers only) : 11, Book Chapters : 2, Patents: 1.

Details of Papers, Books, General Articles, Patents if any

1) S. Jagadeesh Babu, V. Navakoteswara Rao, Dharmapura H.K. Murthy, Mahesh Shastri, Murthy M, Manjunath Shetty, K.S. Anantha Raju, Prasanna D. Shivaramu, C. S. Ananda Kumar, M.V. Shankar, Dinesh Rangappa*, "Significantly enhanced cocatalyst-free H2 evolution from defect-engineered Brown TiO_2" *Elsevier, Ceramics International*, 2020, (Impact Factor=5.5). https://doi.org/10.1016/j.ceramint.2020.10.026.

2) S. Jagadeesh Babu, Murthy Muniyappa, …..Ananda Kumar C.S*, Dinesh Rangappa**, "Carbon-based TiO_{2-x} heterostructure nanocomposites for enhanced photocatalytic degradation of dye molecules" *Elsevier, Ceramics International*, 2020, https://doi.org/10.1016/j.ceramint.2020.12.014. (Impact Factor =5.5)

3) Jagadeesh Babu Sriramoju, K Navakoteswar Rao…. M. V. Shankar, Ananda Kumar C.S, Dinesh Rangappa*, "Enhanced Photocatalytic Hydrogen Evolution from Reduced Graphene Oxide- Defect Rich TiO_{2-x} Nanocomposites" accepted in *Elsevier,*

International Journal of Hydrogen Energy. https://doi.org/10.1016/j.ijhydene.2022.07.115. (Impact Factor =7.31)

4) Manjunath Shetty, Karnan Manickavasakam.. S Jagadeesh Babu, Dinesh Rangappa*, "Bismuth oxycarbonate Nanoplates@ α-$Ni(OH)_2$ nanosheets 2D plate-on-sheet heterostructure as electrode for high-performance supercapacitor" *Elsevier, Journal of Alloys & Compounds*, 2020, https://doi.org/10.1016/j.jallcom.2020.158495 (Impact Factor =6.3)

5) Manjunath Shetty, Christian Schüßler… S Jagadeesh Babu, Dinesh Rangappa*, "One-pot supercritical water synthesis of Bi_2MoO_6-RGO 2D heterostructure as anodes for Li-ion batteries" *Elsevier, Ceramics International*, 2020, https://doi.org/10.1016/j.ceramint.2020.12.061 (Impact Factor =5.5)

6) Sujana Chandrappa, Dharmapura H.K. Murthy Nagappagari Lakshmana Reddy, S. Jagadeesh Babu, DineshRangappa, ….., Muthukonda Venkatakrishnan Shankar "Utilizing 2D materials to enhance H2 generation efficiency via photocatalytic reforming industrial and solid waste" *Elsevier, Environmental Research 2021,* https://doi.org/10.1016/j.envres.2021.111239. (Impact Factor -8.5)

7) Ravi Mudike; Chetana Sabanahalli; Jagadeesh Babu Sriramoju; … C.S. Ananda Kumar, Prasanna D Shivaramu, Dinesh Rangappa; "Copper zinc tin sulfide and multi-walled carbon nanotube (CZTS-MWCNT) nanocomposites for visible-light-driven photocatalytic applications" *Elsevier, Material Research Bulletin,* 2021 https://doi.org/10.1016/j.materresbull.2021.111606. (Impact Factor-5.6)

8) Chitra Banu C. Paramesh, GuddappaHalligudra, …, S Jagadeesh Babu, Dinesh Rangappa, D S Prasanna, "Silver nanoparticles synthesized using saponin extract of Simarouba glauca oil seed meal as effective, recoverable and reusable catalyst for reduction of organic dyes" *Elsevier, Surfaces and Interfaces,* 2021. https://doi.org/10.1016/j.rsurfi.2021.100005.

9) Mahesh Shastri, Jagadeesh Babu Sriramoju, …, Prasanna D Shivaramu, Dinesh Rangappa*, "Silk cocoon derived carbon and sulfur nanosheets as cathode material for Li-S Battery Application" *Springer, Emergent Materials 2021.* https://doi.org/10.1007/s42247-021-00218-1.

10) M Murthy; N K Sagara; Manjunath Shetty; Jagadeesh Babu; Navya Rani Marilingaiah; Mahesh Shastri; Sushil Kumar Singh; S. V. Navakoteswara Rao; Debasis De; M.V. Shankar; "Cocatalyst free Nickel Sulphide Nanostructure for Enhanced Photocatalytic Hydrogen Evolution" in *Elsevier, International Journal of Hydrogen Energy 2021.* https://doi.org/10.1016/j.ijhydene.2021.11.171. Impact Factor =7.3)

11) S Chetana, Manjunath Shetty, Kunal Roy, Jagadeesh Babu Sriramoju, GuddappaHalligudra, Prasanna D Shivaramu, CS Kumar, KG Basavakumar, Dinesh Rangapp*, "Study on the DC supply and charging effect on the growth of carbon nanotubes and their electrochemical properties" in *Springer, Journal of Materials Science: Materials in Electronics 2022.* https://doi.org/10.1007/s10854- 022-08813-6 Impact Factor =2.9)

Book Chapters →

1. **S Jagadeesh Babu,** Chitrabanu C. Paramesh, …., Dinesh Rangappa, Prasanna D. Shivaramu, Chapter Title- ***Magnetic Photocatalytic Systems***, Book Title- **PHOTOCATALYTIC SYSTEMS BY DESIGN: MATERIALS, MECHANISMS AND APPLICATIONS,** publisher **Elsevier**
2. Murthy Muniyappa, Manjunath Shetty, Mahesh Shastri, **S Jagadeesh Babu,** M Navya Rani, Prasanna D Shivaramu, Dinesh Rangappa; Chapter Title- ***Nanostructured MoS_2 as Non-noble Metal-Based Cocatalyst for Photocatalytic Applications"*** **Book Title**

"NANOSTRUCTURED MATERIALS FOR ENVIRONMENTAL APPLICATIONS" ISBN: 978-3-030-72076-6

Patents

1. Multiwall carbon nanotube deposited silk cocoon as force/pressure sensitive sensors-202241053883 A

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
-	-	-	-	-

A. Name: Dr.RamuVankudoth

B. Date of Birth: 13/06/1986

C. Institution: Malla Reddy Engineering College (A)

D. Whether belongs to SC/ST: ST

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Qualification	University	Specialization
1	B.Sc	Kakatiya University	Computer Science
2	MCA	Kakatiya University	Computer Application
3	Ph.D	Kakatiya University	Software Engineering

Professional career:

F. Award/Prize/Certificate etc. won by the investigator: No

G. Publication (Numbers only) 20
Details of Papers, Books, General Articles, Patents if any

Journal Publications

1. Dr.Ramu V,Dr.S.Shiva Prasad &V.Shobha Rani, "A Hyperparameters Classification Scheme for Detecting Plant Diseases in Image Processing" Journal of Harbin Engineering University. ISSN:1006-7043
2. Dr.Ramu,V, "Cotton Crop Classification Using Multi Spectral Satellite Images for Soil Behavior Study", Research Score, ISSN: 2693-5015.
3. Dr.Ramu V and Dr.S.Shiva Prasad, "Empowering Large Scale Cluster Analysis Introducing the Optimized Repartitioned K-Means Algorithm on Hadoop", Journal of Aeronautical Materials, ISSN: 1005-5053

4. Dr.Ramu V and Dr.S.Shiva Prasad, “Telugu Dialect Identification Using Machine Learning Models with Cross Validation An Automated Approach to Preserving Linguistic Diversity” NeuroQuantology, ISSN: 1303-5150
5. Dr.Ramu V and G.Vijay, “Deep Learning-Based Cursive Text Detection and Recognition in Natural Scene Images” International Journal of Scientific Research in Science and Technology Print ISSN: 2395-6011
6. V.Shobha Rani and Dr.Ramu V “DevOps Education: An Interview Study of Issues and Approaches” International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), ISSN: 2394-2320
7. Dr.Ramu V,K.Jyothi&V.Shobha Rani, “Improving Character Recognition in Scenery Images Using a Multilevel Convolutional Neural Network with Attention Mechanisms” has been ACCEPTED to publish with Indian Journal of Natural Sciences, ISSN: 0976- 0997
8. Dr.Ramu V, K.Jyothi&V.Shobha Rani, “A Model Effective on Cotton Crop Classification using Convolutional Neural Networks” has been ACCEPTED to publish with Tuijin Jishu/Journal of Propulsion Technology, ISSN: 1001-4055
9. Ramu, V., Shireesha, P. “Classification of Components in Software Engineering and Objectives of Component Based Software Engineering”. International Journal of Scientific Research in Science and Technology, Impact Factor: 4.335, ISSN No: 2395- 6011, Vol: 2, Issue: 6, Page No: 598–60, December 2016. www.ijsrst.com UGC Approved Journal No : 64011
10. Ramu, V., Shireesha. “A Model System for Effective Classification of Software Reusable Components”. Pakistan Journal of Biotechnology, Impact Factor: 0.26, ISSN No: 1812-1837, Vol:13, Special Issue, Page No: 478–481, March, 2016, UGC Approved & Scopus Journal No : 36861
11. Ramu, V., Shireesha, P. “Hybrid Optimization Driven RideNN for Software Reusability Estimation”. Journal of Engineering Research, Impact Factor: 0.675, ISSN No: 2307- 1877, Vol:8, Issue:4, Page No:99–116, November, 2020 (Science Citation Index)
12. Ramu, V., Shireesha, P. “An Effective Model for Maintenance of Reusable Components and Software System”. International Journal of Advanced Science and Technology, Impact Factor: 0.475, ISSN No: 2005-4238, Vol: 29, Issue: 4, Page No: 272–279, January, 2020. http://sersc.org/journals/index.php/IJAST/article/view/4065/2730 (Scopus)
13. Ramu, V., Shireesha, P. “A Model of System Software Components Using Genetic Algorithm and Techniques”, “International Journal of Advanced Research in Computer Science and Software Engineering” Impact Factor: 0.987, ISSN No: 2277-128X, Vol:6, Issue:9, Page No:301-306, September, 2016.
14. Ramu, V., Shireesha, P. “Retrieval of Best Fit Software Component Using Genetic Algorithm”. International Journal of Scientific Research in Science and Technology, Impact Factor: 4.335, ISSN No: 2395-6011, Vol:4, Issue:7, Page No:1378-1387, March, 2018 www.ijsrst.com UGC Approved Journal No : 64011
15. Ramu, V., Shireesha, P. (2018). “The Uses of Genetic Algorithms in Software Reusable Components”. International Journal of Research and Analytical Reviews (IJRAR) Www.Ijrar.Org, Impact Factor : 5.75, ISSN No: 2349- 5138, Volume:5, Issue: 4, Page No : 240-245, October, 2018, http://www.ijrar.org/papers/IJRAR1904531.pdf UGC Approved
16. Sawant, A. M., Ramu, V., Navale, V., Kumavat, Ramu, V., Kumari, P., Santhakumari, B., &Vamkudoth, K. R. “Morphological and molecular characterization of Penicillium rubenssp.nov isolated from poultry feed”. Indian Phytopathology, Impact Factor:0.39, ISSN No: 2248-9800 Vol:72, Issue:3, September, 2019 (Springer)
17. Ramu, V., Shireesha, P. (2017). “An Effective Approach for Reusable Component Using Genetic Algorithm”. International Journal of Modern Computer Science (IJMCS), ISSN No: 2320-7868, Impact Factor: 4.556, ISSN No: 2320-7868, Vol:5, Issue:5, Page No:21–25, October, 2017, http://www.ijmcs.info/index.php?vr=october_issue17.

National Conference

18. Ramu, V., Shireesha, P. "Survey on Classification of Components from Software Reuse Repository" Mar-2017, Page No: 12–114, National Conference on Current Research Advances in Computer Science.
19. Ramu, V., Shireesha, P. "A Model for Cost Estimation Analysis for Software Reusable Components". 3rd National Conference on Emerging Technologies in Computer Science and Engineering – 2020, Page No:84–92.
20. Dr.Ramu, V., Hanmanthu Bhukya. "A Privacy Applicable Deep Learning Schemes for Big Data", International Conference on Computational Intelligence and Sustainable Development by Chitanya Deemed to be University, April, 2022.

Book Publications

1. **Dr Ramu, V.,** K.Deepthi, "Object Oriented Programming" published in July 2023 by Charulatha Publications with ISBN-13: 978-93-5577-536-8

Copyright

1. Secure Multi -Party Computation System for Privacy-Preserving Data Analytics, Registration No: 1202851

UGC AND FDP COURSES

1. Participated in Meity, Govt. of India Sponsored Faculty Development Programme (FDP) on "Software Engineering and Testing methodologies" organized by the E&ICT Academy, National Institute of Technology (NITW), Warangal at Department of computer Science and Engineering, NIT, Warangal from 5th may to 14th may,2017 (10 days)
2. Participated in Meity, Govt. of India Sponsored Faculty Development Programme (FDP) on "Software Project Management" organized by the E&ICT Academy, National Institute of Technology (NITW), Warangal at Department of computer Science and Engineering, NIT, Warangal from 2nd June to 7th June, 2017 (5 days)
3. Participated in Workshop on "Quality Assurance in Higher Educational Institutions and Industries" at KITS, Warangal from 19th July to 23rd July, 2017 (5 days)
4. Participated in National Workshop on "Design and Analysis of algorithms" Department of Computer Science, Kakatiya University, Warangal from 29th December to 30th December 2017 (2 days)
5. Participated in Two National Workshop on "Internet of Things (IoT)" University College of Engineering & Technology for Women, Kakatiya University, Warangal from 17th February to 18th February 2018 (2 days)
6. Participated in Meity, Govt. of India Sponsored Faculty Development Programme(FDP) on "Machine Learning" Organized by the E & ICT Academy, National Institute of Technology, Warangal from 12th March to 17th March, 2018 (6 days)
7. Participated in Two Week Faculty Development Programme (FDP) on "Block chain Technologies" Organized by Department of Computer Science and Engineering, SR Engineering College, Warangal from 17th June to 28th June 2019 (Two Weeks)
8. Participated in Two Week Faculty Development Programme (FDP) on "Machine Learning in Speech Processing" Organized by Department of Computer Science and Engineering, Kakatiya Institute of Technology & Science, Warangal from 11th November to 22nd November 2019 (Two Weeks)
9. Participated in Two Week Faculty Development Programme (FDP) on "Advances in Internet of Things" Organized by Department of Computer Science and Engineering,

Kakatiya Institute of Technology & Science, Warangal from 12th December to 22nd December 2019 (Two Weeks)

10. Participated in Two Week Faculty Development Programme (FDP) on “Domain Specific Internet of Things and Illustration of IoTs Design Case Studies” Organized by Department of Computer Science and Engineering, Kakatiya Institute of Technology & Science, Warangal 9th January to 21st January 2020 (Two Weeks)

Online Faculty Development Programme:

11. Online Faculty Development Programme (FDP) on “Internet of Things (IoT)” from 11-05-2020 to 15-05-2020 at National Institute of Technology, Warangal.
12. 5 Days Online Faculty Development Programme (FDP) on “Innovative Trends in Data Analysis with AI” from 26-05-2020 to 30-05-2020. Presented by Codegnan IT Solutions. At Malineni Lakshmaiah Women’s Engineering College, Guntur.
13. One Week Faculty Development Programme (FDP) on “ An Innovative Research Trends in Data Science Using R Programming” from 26th to 31st May 2020 Organized by Department of Computer Science & Engineering, Santhiram Engineering College, Nandyal in Collaboration with Codegnan IT Solutions, Vijayawada.
14. One Week Faculty Development Programme (FDP) on “Data Science Using R Programming” from 12th to 17th June 2020 organized by Department of IT in association with Webtek Labs.
15. One Week Faculty Development Programme (FDP) on "Computer Science & Biology" from 2021-1-25 to 2021-1-29 at Kakatiya Institute of Technology & Science.
16. One Week Faculty Development Programme (FDP) on "Machine Learning Using R Programm" from 04.03.2021 to 10.03.2021 organized by Jyothishmathi Institute of Technology & Science, Nustulapur, Karimnagar, Telangnana.
17. One Month Faculty Development Program(FDP) on “Master Class on Python Programming” from 28-02-2022 to 29-03-2022 at Pantech e Learning Pvt Ltd, Chennai.
18. One Month Faculty Development Program(FDP) Coordinator on “Java Programming Master Class Series” from 11-04-2022 to 10-05-2022 Organized by SkillAp APSSDC in association with PANTECH E LEARNING.
19. One Month Faculty Development Program(FDP) Coordinator on “Machine Learning Master Class” from 25-05-2022 to 24-06-2022 Organized by SkillAp APSSDC in association with PANTECH E LEARNING.
20. One Week Faculty Development Program(FDP) on “Augmented & Virtual Reality with Data Science” from 06-06-2022 to 11-06-2022 Organized by Department of EXTC & CSE, P.R.Pote Patil College of Engineering & Management in association with PANTECH E LEARNING.
21. Participated 30 Days Masterclass on “REACT JS” organized by Pantech E Learning from 10th April 2023 to 12th May 2023
22. Participated Two Week National Level Virtual Workshop on “Advanced Research Methodology” organized by SRM 3rd to 18th July 2023
23. Participated One Week Faculty Development Program on “Data Visualization Using Tableau” organized by Department of Computer Science & Information Technology MLRIT from 24th to 28th July 2023.
24. Participated One Week National Level Faculty Development Program on “Cloud Infrastructure(AWS)” organized by Annamacharya Institute of Technology & Science(A), Kadapa from 21st to 25th August 2023

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status

A. Name: Mr. P Rajasekhar Reddy

B. Date of Birth: 15-06-1988

C. Institution: Malla Reddy Engineering College

D. Whether belongs to SC/ST: No

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Tech	Sri Krishnadevaraya University	Electronics and Communication Engineering
2	M.Tech	NIT Trichy	Communication Systems

Professional career:

F. Award/Prize/Certificate etc. won by the investigator: Nil

G. Publication (Numbers only): 2
Details of Papers, Books, General Articles, Patents if any

1. RajasekharreddyPoreddy and E S Gopi, "Improvement of accuracy of under-performing classifier in decision making using discrete memoryless channel model and Particle Swarm Optimization" in Expert Systems With Applications, Elsevier, vol. 213 (A), pp. 1-12, 2023 (SCIE).
2. RajasekharreddyPoreddy and E S Gopi, "Feature selection for vocal segmentation using social emotional optimization algorithm", in Socio-cultural Inspired Metaheuristics, Springer Singapore, pp. 69-91, 2019 (Scopus).

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
-	-	-	-	-

A. Name: Vasala Vinod kumar

B. Date of Birth 14/12/1993

C. Institution Malla Reddy Engineering College (A)

D. Whether belongs to SC/ST : Yes

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Tech	JNTUH	Mining Engineering
2	M.Tech	MPUAT	Mine planning

Professional career:

F. Award/Prize/Certificate etc. won by the investigator:

G. Publication (Numbers only)
Details of Papers, Books, General Articles, Patents if any
Patent Application no 202241076936
Patent Application no 202341062841
H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status

A. Name: P.Uday

B. Date of Birth: 22-06-1993

C. Institution: Malla Reddy Engineering College

D. Whether belongs to SC/ST: YES

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Tech	Jawaharlal Nehru	Computer Science and Engineering

		Technological University Hyderabad	
2	M.Tech	NIT Warangal	Computer Science and Information Security

Professional career:

F. Award/Prize/Certificate etc. won by the investigator: NIL

G. Publication (Numbers only)
Details of Papers, Books, General Articles, Patents if any
NIL

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
-	-	-	-	-

ANNEXURE – V

POLICY ON CONFLICT OF INTEREST
(FOR REVIEWER & COMMITTEE MEMBER or APPLICANT or DST OFFICER ASSOCIATED/ DEALING WITH THE SCHEME/ PROGRAM OF DST)

Issues of Conflicts of Interest and ethics in scientific research and research management have assumed greater prominence, given the larger share of Government funding in the country's R & D scenario. The following policy pertaining to general aspects of Conflicts of Interest and code of ethics, are objective measures that are intended to protect the integrity of the decision making processes and minimize biases. The policy aims to sustain transparency, increase accountability in funding mechanisms and provide assurance to the general public that processes followed in award of grants are fair and non-discriminatory. The Policy aims to avoid all forms of bias by following a system that is fair, transparent and free from all influence/ unprejudiced dealings, prior to, during and subsequent to the currency of the programme to be entered into with a view to enable public to abstain from bribing or any corrupt practice in order to secure the award by providing assurance to them that their competitors will also refrain from bribing and other corrupt practice and the decision makers will commit to prevent corruption, in any form, by their officials by following transparent procedures. This will also ensure a global acceptance of the decision making process adopted by DST.

Definition of Conflict of Interest: Conflict of Interest means "any interest which could significantly prejudice an individual's objectivity in the decision making process, thereby creating an unfair competitive advantage for the individual or to the organization which he/she represents". The Conflict of Interest also encompasses situations where an individual, in contravention to the accepted norms and ethics, could exploit his/her obligatory duties for personal benefits.

Coverage of the Policy: The provisions of the policy shall be followed by persons applying for and receiving funding from DST, Reviewers of the proposal and Members of Expert Committees and Programme Advisory Committees. The provisions of the policy will also be applicable on all individuals including Officers of DST connected directly or indirectly or through intermediaries and Committees involved in evaluation of proposals and subsequent decision making process.

This policy aims to minimize aspects that may constitute actual Conflict of Interests, apparent Conflict of Interests and potential Conflict of Interests in the funding mechanisms that are presently being operated by DST. The policy also aims to cover, although not limited to, Conflict of interests that are Financial (gains from the outcomes of the proposal or award), Personal (association of relative / Family members) and Institutional (Colleagues, Collaborators, Employer, persons associated in a professional career of an individual such as Ph.D. supervisor etc.)

2. Specifications as to what constitutes Conflict of Interest: Any of the following specifications (non-exhaustive list) imply Conflict of Interest if,

(a) Due to any reason by which the Reviewer/Committee Member cannot deliver fair and objective assessment of the proposal.
(b) The applicant is a directly relative# or family member (including but not limited to spouse, child, sibling, parent) or personal friend of the individual involved in the decision making process or alternatively, if any relative of an Officer directly involved in any decision making process / has influenced interest/ stake in the applicant's form etc.
(c) The applicant for the grant/award is an employee or employer of an individual involved in the process as a Reviewer or Committee Member; or if the applicant to the grant/award has had an employer-employee relationship in the past three years with that individual.
(d) The applicant to the grant/award belongs to the same Department as that of the Reviewer/Committee Member.
(e) The Reviewer/Committee Member is a Head of an Organization from where the applicant is employed.
(f) The Reviewer /Committee Member is or was, associated in the professional career of the applicant (such as Ph.D. supervisor, Mentor, present Collaborator etc.)
(g) The Reviewer/Committee Member is involved in the preparation of the research proposal submitted by the applicant.
(h) The applicant has joint research publications with the Reviewer/Committee Member in the last three years.
(i) The applicant/Reviewer/Committee Member, in contravention to the accepted norms and ethics followed in scientific research has a direct/indirect financial interest in the outcomes of the proposal.
(j) The Reviewer/Committee Member stands to gain personally should the submitted proposal be accepted or rejected.

The Term "Relative" for this purpose would be referred in section 6 of Companies Act, 1956.

3. Regulation: The DST shall strive to avoid conflict of interest in its funding mechanisms to the maximum extent possible. Self-regulatory mode is however recommended for stake holders involved in scientific research and research management, on issues pertaining to Conflict of Interest and scientific ethics. Any disclosure pertaining to the same must be made voluntarily by the applicant/Reviewer/Committee Member.

4. Confidentiality: The Reviewers and the Members of the Committee shall safeguard the confidentiality of all discussions and decisions taken during the process and shall

refrain from discussing the same with any applicant or a third party, unless the Committee recommends otherwise and records for doing so.

5. Code of Conduct

5.1 To be followed by Reviewers/Committee Members:

(a) All reviewers shall submit a conflict of interest statement, declaring the presence or absence of any form of conflict of interest.
(b) The reviewers shall refrain from evaluating the proposals if the conflict of interest is established or if it is apparent.
(c) All discussions and decisions pertaining to conflict of interest shall be recorded in the minutes of the meeting.
(d) The Chairman of the Committee shall decide on all aspects pertaining to conflict of interests.
(e) The Chairman of the Committee shall request that all members disclose if they have any conflict of interest in the items of the agenda scheduled for discussion.
(f) The Committee Members shall refrain from participating in the decision making process and leave the room with respect to the specific item where the conflict of interest is established or is apparent.
(g) If the Chairman himself/herself has conflict of interest, the Committee may choose a Chairman from among the remaining members, and the decision shall be made in consultation with Member Secretary of the Committee.
(h) It is expected that a Committee member including the Chair-person will not seek funding from a Committee in which he/she is a member. If any member applies for grant, such proposals will be evaluated separately outside the Committee in which he/she is a member.

5.2 To be followed by the Applicant to the Grant/Award:

(a) The applicant must refrain from suggesting referees with potential Conflict of Interest that may arise due to the factors mentioned in the specifications described above in Point No. 2.
(b) The applicant may mention the names of individuals to whom the submitted proposal should not be sent for refereeing, clearly indicating the reasons for the same.

5.3 To be followed by the Officers dealing with Programs in DST:

While it is mandatory for the program officers to maintain confidentiality as detailed in point no. 6 above, they should declare, in advance, if they are dealing with grant applications of a relative or family member (including but not limited to spouse, child, sibling, parent) or thesis/ post-doctoral mentor or stands to benefit financially

if the applicant proposal is funded. In such cases, DST will allot the grant applications to the other program officer.

6. Sanction for violation

6.1 For a) Reviewers / Committee Members and b) Applicant: Any breach of the code of conduct will invite action as decided by the Committee.
6.2 For Officers dealing with Program in DST: Any breach of the code of conduct will invite action under present provision of CCS (conduct Rules), 1964.

7. Final Appellate authority: Secretary, DST shall be the appellate authority in issues pertaining to conflict of interest and issues concerning the decision making process. The decision of Secretary, DST in these issues shall be final and binding.

8. Declaration

I have read the above "Policy on Conflict of Interest" of the DST applicable to the Reviewer/ Committee Member/ Applicant/ DST Scheme or Program Officer # and agree to abide by provisions thereof.

I hereby declare that I have no conflict of interest of any form pertaining to the proposed grant*
I hereby declare that I have conflict of interest of any form pertaining to the proposed grant *

* & # (Tick whichever is applicable)

Name of the ~~Reviewer~~/ ~~Committee Member~~ or Applicant or ~~DST Officer~~
(Strike out whichever is not applicable)

12/10/23.

(Signature with date)

ANNEXURE-VI

TENTATIVE INDICATORS FOR MONITORING THE OUTPUT AND OUTCOMES
(The indicators are only tentative, only the indicators relevant to your project may be selected, no need to respond to all the indicators)

(a) Output Indicators (expected during the project implementation period)

Sl. No	*Indicators*	*Numbers*
1	New technologies/ techniques/ tools/processes to be developed	
2	Technologies/ techniques/ tools to be deployed (existing technologies)	√
3	Technologies to be modulated and deployed (adaptive R&D)	
4	Technologies to be field tested (new and modulated technologies)	
5	Technologies that can be transferred	√
6	Technologies that can be commercialized	
7	Reports/Manuals that can be generated	
8	Patents (applied/granted) if any [expected to be generated]	
9	Paper published, if any Popular articles, awareness leaflets, pamphlets developed and published	
10	Short duration user friendly video/photo gallery produced using available handy cameras for technology popularization	
11	Beneficiaries covered under the Project (Numbers with gender wise percentages: District wise, age groups wise)	
12	New SHGs/CIGs/TAG's to be formed under the Project and how many are all women SHG	
13	Existing SHGs/CIGs/TAG's to be strengthened under the Project	
14	Agriculture Land Covered to be for project interventions	
15	FPOs to be formed under the Project	
16	Awareness, Training and skill development Programmes Conducted with number of male and female participants	Total 300, 200Males 100 Females
19	Manpower to be trained- total with gender wise percentages	
20	Youth to be employed- total with gender wise percentages	
21	Common Facility, village community Centers/ Rural science and technology translation and dissemination hub (new or upgraded)/Permanent Structures/Common Resources to be Created	1
22	Beneficiaries directly using the facilities to be created	
23	Beneficiaries indirectly using the facilities to be created	
24	HHs(households) to be involved	

Outcome Indicators (expected at the end of project implementation period)

Sl. No	*Indicators*	*Numbers*
1	Access to Clean and Safe Drinking Water (give number of households and total population benefited)	
2	Access to Clean Energy – including cooking and electricity (give number of households and total population benefited)	
3	Access to Health care facilities/Improved Nutrition (give number of households and total population benefited)	

4	Access to other infrastructure – toilets/low cost houses (give number of households and total population benefited)	500 peoples
5	Access to financial institutions (give number of households)	
6	Livelihood Diversification (Farm and Non-Farm - indicate the diversified trades)	
7	Increase in household income due to project interventions (give %)	
8	Number of other organizations, rural institutions, cooperative societies, Youth clubs and Progressive circles, FPOs to be motivated and mobilized for replication of project outcomes (scientific capacity building)	
9	Increase in Agricultural (crop/livestock/poultry/fisheries) Productivity	
10	Increased availability of resources (natural and/or physical) and assets	
11	Increase in livelihood/ employment opportunities in different areas (list the areas/field and give the number of entrepreneurs)	
12	New Enterprises to be developed (mention the enterprises)	
13	Drudgery reduction (brief achievements) - Name and number of technologies to be developed or upgraded, and adopted) for drudgery reduction	
14	Improved linkages with market/ enterprises	
15	Adoption of newly developed technologies/ products/processes/ indicated by number of adopters	
16	No. of organizations, entrepreneurs motivated and mobilized for replication of project achievements	
19	Linkages established with Govt schemes and any subsidy availed from Govt agencies	
20	Community's empowerment (technology user group formed; saving cum credit group; health improvement etc.)	
21	Database/Documentation of livelihood system, indigenous resources and knowledge capacity and aspiration.	
22	Preparation of map of soil C, pH, surface soil moisture map (of entire area or parts)	

ANNEXURE-III

BIODATA OF PRINCIPAL INVESTIGATOR

A. Name: Dr P JOEL JOSEPHSON

B. Date of Birth: 14-January-1984

C. Institution: Malla Reddy Engineering College, Maisammaguda, Dhulapally, Medchal

D. Whether belongs to SC/ST:

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Tech	Jawaharlal Nehru Technological University Hyderabad	Electronics and Communication Engineering
2	M.Tech	Jawaharlal Nehru Technological University Hyderabad	Embedded Systems
3	Ph.D	Anna University	Embedded Systems

Professional career:

F. Award/Prize/Certificate etc. won by the investigator:

G. Publication (Numbers only) 22
Details of Papers, Books, General Articles, Patents if any

Papers:

1. Published a paper titled as "**A Novel Algorithm for Real Time Framework in Multiprocessor Environment**" Joel Josephson P & Dr.R.Ramesh in Design Automation for Embedded Systems**(SCI)** DOI: 10.1007/s10617-017-9195-7 ISSN 0929-5585. October 2017.

2. Published a paper titled as "**A Novel Algorithm for Real Time Scheduling in Multiprocessor Environment**" Joel Josephson P & Dr.R.Ramesh in Cluster Computing **(SCI)** DOI :10.1007/s10586-018-2083-5. ISSN 1386-7857. Febrauary 2018.

3. Published a paper titled as "**Routing Path Selection and Data Transmission in Industry-Based Mobile Communications Using Optimization Technique**" Joel Josephson P et al in "Wireless Communications and mobile Computing" **(SCI),** July 2022.

4. Published a paper titled as "**IoT battery management system in electric vehicle based on LR parameter estimation and ORMeshNet gateway topology**" Joel Josephson P et al in Sustainable Energy Technologies and Assessments **Q1 Journal** (**SCI**), August 2022.

5. Published a paper titled as "**Classification of Multispectral image using Hybrid adapted crow search optimization based on learning techniques**" Joel Josephson P et al in "Wireless Communications and mobile Computing" **(SCI),** September 2022.

6. Published a paper titled as "**Medical Image Enhancement In Health Care Applications Using Modified Sun Flower Optimization**" Joel Josephson P et al in "Wireless Communications and mobile Computing" **(SCI),** October 2022.

7. Published a paper titled as "**Artificial neural networks-based improved Levenberg–Marquardt neural network for energy efficiency and anomaly detection in WSN**" Joel Josephson P et al in "Wireless Networks" **(SCI),** March 2023.

8. Published a paper titled as "**Computation Offloading for Image Compression in Mobile Edge Computing Using a Deep Belief Network Based on the Markov Approximation Algorithm"** Joel Josephson P et al in "Mobile Networks and Applications" (SCI), in September 2023.

9. Published a paper titled as **"Empowering Scientific temper through Cognitive learning among higher secondary students"** Joel Josephson P et al in "International Journal of Early Childhood Special Education (INT-JECSE)" May 2022.

10. Published a paper titled as "Exploratory Data Analysis Based on Micro grids Generation for Control Communication and Monitoring via Wireless Sensor Network" Joel Josephson P et al in "IEEE Xplore" (Scopus), July 2022.

11. Published a paper titled as "Wireless Level Monitoring of Interfacing Two-Tank System through User Datagram Protocol" Joel Josephson P et al in IEEE Xplore, May 2023.

12. Published a paper titled as "Framework for Real Time Heterogeneous Multiprocessor System using DYTAS Algorithm" Joel Josephson P & Vaibhav Meshram in International Research Journal of Engineering and Technology (IRJET)., Volume: 06 Issue: 05. May 2019.

13. Published a paper titled as "A Survey of Trolley/Wheel Chair based Smart System for Exclusive Medical Applications" L.Subhashree, D.Sruthiraj, S.Vinitha, Joel Josephson in International Research Journal of Engineering and Technology (IRJET)., Volume: 03 Issue: 03. March 2018.

14. Published a paper titled as "Modified Round Robin Algorithm for Task Scheduling" Joel Josephson P & Matta Jagadeesh Chandra Prasad in International Journal for Recent Developments in Science and Technology December 2019.

15. Published a paper titled as "Real Time Scheduler Simulator Framework for Multi-Processor Embedded Application: A Review" P.Joel Josephson, Dr.R.Ramesh and C.Yaashuwanth. lnternational Conference on lnformation Technology, Electronics and Communications (ICITEC – 11) Hyderabad, India, November 29- 30, 2011.

16. Published a paper titled as "A Cluster based Scheduling Algorithm (CBSA) for Multiprocessor Systems" P.Joel Josephson, lnternational Conference on Intelligent Systems, Electrical Communication Technology (ICISECT – 21) Hyderabad, India, April 9-10, 2021.

17. Published a paper titled as "Soldier Health & Position Tracking System" P.Joel Josephson, Milaliyan Samantaray, Preethi Roshan, G. Rakesh. lnternational Conference on Smart Modernistic in Electronics and Communication (ICSMEC – 21) Hyderabad, India, July 2-3, 2021.

18. Published a paper titled as "Quadriplegics Wheelchair Control by Head Motion Using Accelerometer" P.Joel Josephson, G Shiva Kumar Reddy, S Sathish Kumar Reddy, S Rajitha. lnternational Conference on Smart Modernistic in Electronics and Communication (ICSMEC – 21) Hyderabad, India, July 2-3, 2021.

19. Published a paper titled as “Histogram Equalization-Based Techniques for Contrast Enhancement of Mri Brain Glioma Tumor Images: Comparative Study” P.Joel Josephson, K Kalpana, L Harshitha, D Sucharitha lnternational Conference on Smart Modernistic in Electronics and Communication (ICSMEC – 21) Hyderabad, India, July 2-3, 2021.

20. Published a paper titled as “Time Quantum Scheduling Algorithm” P.Joel Josephson lnternational Conference on Smart Modernistic in Electronics and Communication (ICSMEC – 22) Hyderabad, India, March 28-29, 2022.

21. Published a paper titled as “Successive Interference Cancellation For MIMO-OFDM Systems” Dr P.Joel Josephson, A Akhila, B Chandrika, PRashanth Reddy, G Samuel. lnternational Conference on Smart Modernistic in Electronics and Communication (ICSMEC – 22) Hyderabad, India, March 28-29, 2022.

Patents:

1. Published a Patent titled “Synthesis of e-waste based on machine learning and artificial intelligence autonomous management system for smart for environment” with Number 202141044783A by Indian Government in October 2021.

2. Published a Patent titled “Designing a Robot with Di-electric material to work in High Voltage Electric Environment” with Number 202241013549A by Indian Government in March 2022.

3. Published a Patent titled “Smart Solar Celled Vehicle with Nano particles for efficient utilization of Renewable Energy Resource” with Number 202211015032A by Indian Government in April 2022.

4. Published a Patent titled “Nano Electronics based Solar Cells for efficient Performance of absorption of Solar Energy” with Number 202211013548A by Indian Government in April 2022.

5. Published a Patent titled “A Machine learning based approach to analyze the characteristics of various nano materials for understanding their molecular aspects” with Number 202241021302A by Indian Government in May 2022.

6. Published a Patent titled “Design of a Secure wi-Fi based Home Automation system using internet of things" with Number 202241027054A by Indian Government in May 2022.

7. Published a Patent titled “The Embedded Security Framework for the industrial internet of things (IIOT) and Cyber Security” with Number 202211030237A by Indian Government in June 2022.

8. Published a Patent titled “A Hybrid Digital Image processing techniques for object detection from complex background image” with Number 202241032151A by Indian Government in June 2022.

9. Published a Patent titled “Classification models of early detection and Prediction of Cancer with improved efficiency” with Number 202211052848A by Indian Government in October 2022.

10. Published a Patent titled “ML based oldage people health monitoring system” with Number 202211056721 by Indian Government in October 2022.

11. Published a Patent titled “Systematic Approach integrated with convolutional neural network for predicting the air pollution and air pollutants in industrial area” with Number 202211059592A by Indian Government in November 2022.

12. Published a Patent titled “Arduino based Water Trash Collector” with Number 202241076937A by the Indian Government in January 2023.

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
1	Empowering students for Monitoring their well-being in health, cleanliness with IoT techniques TPN / 94459	DST	Rs. 21,80,000	Submitted

ANNEXURE-IV

BIODATA OF CO INVESTIGATOR (S)

A. Name: Dr.J.Rex

B. Date of Birth: 09-May-1986

C. Institution : Malla Reddy Engineering College, Secunderabad-500100

D. Whether belongs to SC/ST: No

E. Academic and professional career:

(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	**Degree**	**University**	**Specialization**
1	B.E	RVS College of Engineering & Technology, Dindigul-624005, Affiliated to Anna University, Chennai, Tamil Nadu	Civil Engineering
3	M.E	Karunya University, Coimbatore, Tamil Nadu	Structural Engineering

4	Ph.D.	Anna University, Chennai, Tamil Nadu	Civil Engineering

Professional career:

F. Award/Prize/Certificate etc. won by the investigator: -Nil-

G. Publication (Numbers only) : 22 Publications

Details of Papers, Books, General Articles, Patents if any : 1 Patent Granted,

5 Patents Published

Papers Publications:

1. Rex J & Kameshwari B 2016, 'Studies on pumice lightweight aggregate concrete with quarry dust using mathematical modeling aid of ACO techniques', Advances in Materials Science and Engineering, Article ID 9583757, ISSN: 1687-8434 (SCI, Web of Science, Scopus)
2. Arul Gnanapragasam A., Krithika @ Anbudevi M., Rex J. and Mercy A, 2016, 'Damage Assessment of Structure's Based on Wavelet Technique', Advances in Natural and Applied Sciences, Vol.10(1) pg.38-47, ISSN: 1995-0772.
3. M. P. Karthik, Dr. V. Sreevidya, R. Kesavamoorthi, J. Rex "A General Review on Interlocking Paver Blocks", International Journal of Current Engineering and Scientific Research, Vol.4(2) pp 40-42, ISSN: 2394-0697.
4. J.Rex, J.Selwyn Babu, S.Pooja Sri Reddy, "Strength and Durability Aspects of Bacterial Concrete", International Journal of Innovative Technology and Engineering, Vol.8(2S2) December 2018 pp 9-13, ISSN 2278-3075. (SCOPUS).
5. Vishvanath B J, J.Rex, "Use of Steel Slag as Course and Fine Aggregate in Porous Concrete Pavements", International Journal of Innovative Technology and Engineering, Vol.8(2S2) December 2018 pp 436-439, ISSN 2278-3075. (SCOPUS)
6. J.Selwyn Babu, J.Rex, "Experimental Investifgation on Lightweight Concrete Slabs", International Journal of Recent Technology and Engineering", Vol-7 (2S2), January 2019, pp 502-506, ISSN 2277-3878. (SCOPUS)
7. A.M.Satya Sravya, Dr.Rex Jesuraj, "Analysis and Design of RCC Structures against Blast Loads", International Journal of Innovative Research in Technology, Vol-6, July 2019, pp 132-139, ISSN 2349-6002.
8. S.N.Jaya Kumar, Dr.J.Rex, " Studies on Seismic Resistance of RCC Frames with and without Infill Walls", Journal of Applied Science and Computations, Vol-6, Issue-VI, June 2019, pp 1904-1912, ISSN 1076-5131.
9. Binimol Babu, J.Rex, "Pounding effects on Buildings under Seismic Loads" , International Journal for research in Applied Science & Engineering Technology, Vol.7, Issue XII, December 2019, pp 219-226, ISSN 2321-9653.

10. J.Rex, Sandeep, “Analysis Of Column Under The Blast Load By Using Conwep And Cel Methods”, Solid State Technology, Vol 63, 2s, November 2020, pp 7043-7051, ISSN :0038-111X. (SCOPUS)
11. J.Rex, J Selwyn Babu, V Mary Florance, “Dynamic Analysis On Multistoreyed Building Using Etabs”, Solid State Technology, Vol 63, 2s, November 2020, pp 5870-5879, ISSN :0038-111X. (SCOPUS)
12. J.Rex, A Vamsi Krishna, J Selwyn Babu, “Analysis And Design Of G+10 Multi Storey Building Using Etabs”, Solid State Technology, Vol 63, 2s, November 2020, pp 5880-5894, ISSN :0038-111X. (SCOPUS)
13. J.Rex, M Vijay Harsha, J Selwyn Babu, “Effect Of Wind Load On Low, Medium, High Rise Buildings In Different Terrain Category”, Solid State Technology, Vol 63, 2s, November 2020, pp 5826-5842, ISSN: 0038-111X. (SCOPUS)
14. J.Rex, P.Yugesh Reddy, J Selwyn Babu, “Analysis Of G+20 Rc Building In Different Zones Using E-Tabs”, Solid State Technology, Vol 63, 2s, November 2020, pp 5811-5825, ISSN :0038-111X. (SCOPUS)
15. P.Monica, J.Selwyn Babu, J.Rex, “Dynamic Investigation Of RCC Flat Slab Structure Using Etabs”, Solid State Technology, Vol 63, 2s, November 2020, pp 5167-5175, ISSN:0038-111X.(SCOPUS)
16. Rex J, A. S. Dilip Kumar, J. Selwyn Babu, “Seismic Analysis Of Multi Storey Building With And Without Hanging Columns”, Journal Of Mechanics Of Continua And Mathematical Sciences, Vol.-15, No.-9, September 2020, pp 31-41, ISSN: 2454-7190. (till September 2020 in Web of Science).
17. J.Selwyn Babu, J.Rex, K.Bhanu Prakash, S P Raju, “Studies on the seismic behavior of Setback Building”, IOP Conf. Series: Materials Science and Engineering, Vol.1091, Feburary 2021, Article id 012043, (SCOPUS).
18. J.Selwyn Babu, J.Rex, V.Priya Reddy, M.S.Britto Jeyakumar, “ Comparitive study on non-linear time history analysis of a building with and without base isolation using ETABS”, IOP Conf. Series: Materials Science and Engineering, Vol.1091, Feburary 2021, Article id 012029, (SCOPUS).
19. J.Rex, Allam Aravind Kumar, J.Selwyn Babu, “Experimental Study on Durability property on Geopolymer Concrete by using Metakaolin and M.Sand”, Indian Journal of Natural Sciences, Vol.12, Issue 70, February 2022.,pp. 37796-37803, ISSN: 0976-0997. (Web of Science)
20. J.Selwyn Babu, Santhosh Varma, J.Rex, “Analysis of Reinforced Concrete Structures Beams-Columns Joints using Finite Element Modeling’s”, Indian Journal of Natural Sciences, Vol.12, Issue 70, February 2022, Pp 38479-38789 ISSN: 0976-0997. (Web of Science)
21. Dr. G. Prabhakaran, Dr. J. Rex, Durga Chaitanya Kumar Jagarapu, “IOT in Civil Engineering”, NeuroQuantology, Vol.20, Issue 10, August 2022, Pp:5557-5566, ISSN:1303-5150. (Scopus).
22. Dr.J.Rex, Wilfred Rohit Peters, “Nonlinear Analysis of Reinforced Concrete Column using ANSYS”, NeuroQuantology, Vol.20, Issue 16, December 2022, pp:5756-5764, ISSN: 1303-5150 (Scopus).

Patents Filed:

Sl. No.	Name of the Patent	Application No.	Published/ Granted Date
1.	Artificial Intelligence Based Eyewear for Partially Blind Person	**6309602**	**19-Sep-2023** **GRANTED**
2.	A Smart and Safety Enabled Automated Concrete Mixture to suit the needs of various types of buildings (Processed for getting Grant)	202241022415	Published 29/04/2022
3.	The Influence of Different Treatments applied to FLAX Fibres on different properties of Mortar Reinforced by these Fibres	202141028760	Published 09/07/2021
4.	Study on the influence of Terrazyme as a Strengthening agent for Black Cotton Soil	202041052023	Published 11/12/2020
5.	An efficient device and a methodology to identify the quality of construction Materials	202041006605	Published 15/02/2020
6.	System to collect air pollutant from exhaust of a vehicle and further generates oxygen.	201841020231	Published 28/05/2018

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
	-Nil-			

A. Name: Dr. S Jagadeesh Babu

B. Date of Birth: 11-05-1985

C. Institution : Malla Reddy Engineering College

D. Whether belongs to SC/ST: No

E. Academic and professional career: (From Graduation to highest qualification l
evel indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Sc.	Kakatiya University	Computer Science
2	M.Sc	Kakatiya University	Physics
3	M.Tech	JNTU Hyderabad	Nanotechnology
4	Ph.D.	Visvesvaraya Technological University	Applied Sciences (Nanotechnology)

Professional career:

F. Award/Prize/Certificate etc. won by the investigator:

1. Best Poster Award in international conference
2. Best Oral Presentation award in international conference

G. Publication (Numbers only) : 11, Book Chapters : 2, Patents: 1.

Details of Papers, Books, General Articles, Patents if any

1) **S. Jagadeesh Babu**, V. Navakoteswara Rao, Dharmapura H.K. Murthy, Mahesh Shastri, Murthy M, Manjunath Shetty, K.S. Anantha Raju, Prasanna D. Shivaramu, C. S. Ananda Kumar, M.V. Shankar, Dinesh Rangappa*, "Significantly enhanced cocatalyst-free H2 evolution from defect-engineered Brown TiO_2" *Elsevier, Ceramics International*, 2020, (**Impact Factor=5.5**). https://doi.org/10.1016/j.ceramint.2020.10.026.

2) **S. Jagadeesh Babu,** Murthy Muniyappa, …..Ananda Kumar C.S*, Dinesh Rangappa**, "Carbon-based TiO_{2-x} heterostructure nanocomposites for enhanced photocatalytic degradation of dye molecules" *Elsevier, Ceramics International*, 2020, https://doi.org/10.1016/j.ceramint.2020.12.014. (**Impact Factor =5.5**)

3) **Jagadeesh Babu Sriramoju,** K Navakoteswar Rao…. M. V. Shankar, Ananda Kumar C.S, Dinesh Rangappa*, "Enhanced Photocatalytic Hydrogen Evolution from Reduced Graphene Oxide- Defect Rich TiO_{2-x} Nanocomposites" accepted in *Elsevier, International Journal of Hydrogen Energy.* https://doi.org/10.1016/j.ijhydene.2022.07.115. (**Impact Factor =7.31**)

4) Manjunath Shetty, Karnan Manickavasakam.. **S Jagadeesh Babu**, Dinesh Rangappa*, "Bismuth oxycarbonate Nanoplates@ α-$Ni(OH)_2$ nanosheets 2D

plate-on-sheet heterostructure as electrode for high-performance supercapacitor" *Elsevier, Journal of Alloys & Compounds*, 2020, https://doi.org/10.1016/j.jallcom.2020.158495 (**Impact Factor =6.3**)

5) Manjunath Shetty, Christian Schüßler… **S Jagadeesh Babu**, Dinesh Rangappa*, "One-pot supercritical water synthesis of Bi_2MoO_6-RGO 2D heterostructure as anodes for Li-ion batteries" *Elsevier*, *Ceramics International*, 2020, https://doi.org/10.1016/j.ceramint.2020.12.061 (**Impact Factor =5.5**)

6) Sujana Chandrappa, Dharmapura H.K. Murthy Nagappagari Lakshmana Reddy, **S. Jagadeesh Babu,** DineshRangappa, ….., Muthukonda Venkatakrishnan Shankar "Utilizing 2D materials to enhance H2 generation efficiency via photocatalytic reforming industrial and solid waste" *Elsevier, Environmental Research 2021,* https://doi.org/10.1016/j.envres.2021.111239. (**Impact Factor -8.5**)

7) Ravi Mudike; Chetana Sabanahalli; **Jagadeesh Babu Sriramoju**; … C.S. Ananda Kumar, Prasanna D Shivaramu, Dinesh Rangappa; "Copper zinc tin sulfide and multi-walled carbon nanotube (CZTS-MWCNT) nanocomposites for visible-light-driven photocatalytic applications" *Elsevier, Material Research Bulletin,* 2021 https://doi.org/10.1016/j.materresbull.2021.111606. (**Impact Factor-5.6**)

8) Chitra Banu C. Paramesh, Guddappa Halligudra, …, **S Jagadeesh Babu**, Dinesh Rangappa, D S Prasanna, "Silver nanoparticles synthesized using saponin extract of Simarouba glauca oil seed meal as effective, recoverable and reusable catalyst for reduction of organic dyes" *Elsevier, Surfaces and Interfaces*, 2021. https://doi.org/10.1016/j.rsurfi.2021.100005.

9) Mahesh Shastri, **Jagadeesh Babu Sriramoju**, …, Prasanna D Shivaramu, Dinesh Rangappa*, "Silk cocoon derived carbon and sulfur nanosheets as cathode material for Li-S Battery Application" *Springer, Emergent Materials 2021.* https://doi.org/10.1007/s42247-021-00218-1.

10) M Murthy; N K Sagara; Manjunath Shetty; **Jagadeesh Babu**; Navya Rani Marilingaiah; Mahesh Shastri; Sushil Kumar Singh; S. V. Navakoteswara Rao; Debasis De; M.V. Shankar; "Cocatalyst free Nickel Sulphide Nanostructure for Enhanced Photocatalytic Hydrogen Evolution" in *Elsevier, International Journal of Hydrogen Energy 2021.* https://doi.org/10.1016/j.ijhydene.2021.11.171. **Impact Factor =7.3**)

11) S Chetana, Manjunath Shetty, Kunal Roy, **Jagadeesh Babu Sriramoju**, Guddappa Halligudra, Prasanna D Shivaramu, CS Kumar, KG Basavakumar, Dinesh Rangapp*, "Study on the DC supply and charging effect on the growth of carbon nanotubes and their electrochemical properties" in *Springer, Journal of Materials Science: Materials in Electronics 2022.* https://doi.org/10.1007/s10854- 022-08813-6 **Impact Factor =2.9**)

Book Chapters →

1) **S Jagadeesh Babu,** Chitrabanu C. Paramesh, …., Dinesh Rangappa, Prasanna D. Shivaramu, Chapter Title- ***Magnetic Photocatalytic Systems***, Book Title- **PHOTOCATALYTIC SYSTEMS BY DESIGN: MATERIALS, MECHANISMS AND APPLICATIONS,** publisher **Elsevier**

2) Murthy Muniyappa, Manjunath Shetty, Mahesh Shastri, **S Jagadeesh Babu,** M Navya Rani, Prasanna D Shivaramu, Dinesh Rangappa; Chapter Title- ***Nanostructured MoS_2 as Non-noble Metal-Based Cocatalyst for Photocatalytic Applications"*** **Book Title**

"NANOSTRUCTURED MATERIALS FOR ENVIRONMENTAL APPLICATIONS"
ISBN: 978-3-030-72076-6

Patents

1. **Multiwall carbon nanotube deposited silk cocoon as force/pressure sensitive sensors-202241053883 A**

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
-	-	-	-	-

A. Name: Dr.Ramu Vankudoth

B. Date of Birth: 13/06/1986

C. Institution: Malla Reddy Engineering College (A)

D. Whether belongs to SC/ST: ST

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Qualification	University	Specialization
1	B.Sc	Kakatiya University	Computer Science
2	MCA	Kakatiya University	Computer Application
3	Ph.D	Kakatiya University	Software Engineering

Professional career:

F. Award/Prize/Certificate etc. won by the investigator:

G. Publication (Numbers only)
Details of Papers, Books, General Articles, Patents if any

Journal Publications

1. **Dr.Ramu V,** Dr.S.Shiva Prasad & V.Shobha Rani, "**A Hyperparameters Classification Scheme for Detecting Plant Diseases in Image Processing**" Journal of Harbin Engineering University. ISSN:1006-7043
2. **Dr.Ramu,V**, "**Cotton Crop Classification Using Multi Spectral Satellite Images for Soil Behavior Study"**, Research Score, ISSN: 2693-5015.
3. **Dr.Ramu V** and Dr.S.Shiva Prasad, "**Empowering Large Scale Cluster Analysis Introducing the Optimized Repartitioned K-Means Algorithm on Hadoop**", Journal of Aeronautical Materials, ISSN: 1005-5053
4. **Dr.Ramu V** and Dr.S.Shiva Prasad, "**Telugu Dialect Identification Using Machine Learning Models with Cross Validation An Automated Approach to Preserving Linguistic Diversity**" NeuroQuantology, ISSN: 1303-5150

5. **Dr.Ramu V** and G.Vijay, "**Deep Learning-Based Cursive Text Detection and Recognition in Natural Scene Images**" International Journal of Scientific Research in Science and Technology Print ISSN: 2395-6011
6. V.Shobha Rani and **Dr.Ramu V** "**DevOps Education: An Interview Study of Issues and Approaches**" International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), ISSN: 2394-2320
7. **Dr.Ramu V,** K.Jyothi & V.Shobha Rani, "**Improving Character Recognition in Scenery Images Using a Multilevel Convolutional Neural Network with Attention Mechanisms**" has been ACCEPTED to publish with Indian Journal of Natural Sciences, ISSN: 0976- 0997
8. **Dr.Ramu V**, K.Jyothi & V.Shobha Rani, "**A Model Effective on Cotton Crop Classification using Convolutional Neural Networks**" has been ACCEPTED to publish with Tuijin Jishu/Journal of Propulsion Technology, ISSN: 1001-4055
9. **Ramu, V.**, Shireesha, P. "**Classification of Components in Software Engineering and Objectives of Component Based Software Engineering**". International Journal of Scientific Research in Science and Technology, Impact Factor: 4.335, ISSN No: 2395- 6011, Vol: 2, Issue: 6, Page No: 598–60, December 2016. www.ijsrst.com UGC Approved Journal No : 64011
10. **Ramu, V.**, Shireesha. "**A Model System for Effective Classification of Software Reusable Components"**. Pakistan Journal of Biotechnology, Impact Factor: 0.26, ISSN No: 1812-1837, Vol:13, Special Issue, Page No: 478–481, March, 2016, UGC Approved & Scopus Journal No : 36861
11. **Ramu, V.**, Shireesha, P. "**Hybrid Optimization Driven RideNN for Software Reusability Estimation"**. Journal of Engineering Research, Impact Factor: 0.675, ISSN No: 2307- 1877, Vol:8, Issue:4, Page No:99–116, November, 2020 (Science Citation Index)
12. **Ramu, V**., Shireesha, P. "**An Effective Model for Maintenance of Reusable Components and Software System**". International Journal of Advanced Science and Technology, Impact Factor: 0.475, ISSN No: 2005-4238, Vol: 29, Issue: 4, Page No: 272–279, January, 2020. http://sersc.org/journals/index.php/IJAST/article/view/4065/2730 (Scopus)
13. **Ramu, V.**, Shireesha, P. "**A Model of System Software Components Using Genetic Algorithm and Techniques"**, "International Journal of Advanced Research in Computer Science and Software Engineering" Impact Factor: 0.987, ISSN No: 2277-128X, Vol:6, Issue:9, Page No:301-306, September, 2016.
14. **Ramu, V**., Shireesha, P. "**Retrieval of Best Fit Software Component Using Genetic Algorithm**". International Journal of Scientific Research in Science and Technology, Impact Factor: 4.335, ISSN No: 2395-6011, Vol:4, Issue:7, Page No:1378-1387, March, 2018 www.ijsrst.com UGC Approved Journal No : 64011
15. **Ramu, V**., Shireesha, P. (2018). "**The Uses of Genetic Algorithms in Software Reusable Components"**. International Journal of Research and Analytical Reviews (IJRAR) Www.Ijrar.Org, Impact Factor : 5.75, ISSN No: 2349- 5138, Volume:5, Issue: 4, Page No : 240-245, October, 2018, http://www.ijrar.org/papers/IJRAR1904531.pdf UGC Approved
16. Sawant, A. M., **Ramu, V.**, Navale, V., Kumavat, Ramu, V., Kumari, P., Santhakumari, B., & Vamkudoth, K. R. "**Morphological and molecular characterization of Penicillium rubens sp.nov isolated from poultry feed"**. Indian Phytopathology, Impact Factor:0.39, ISSN No: 2248-9800 Vol:72, Issue:3, September, 2019 (Springer)
17. **Ramu, V.**, Shireesha, P. (2017). "**An Effective Approach for Reusable Component Using Genetic Algorithm**". International Journal of Modern Computer Science (IJMCS), ISSN No: 2320-7868, Impact Factor: 4.556, ISSN No: 2320-7868, Vol:5, Issue:5, Page No:21– 25, October, 2017, http://www.ijmcs.info/index.php?vr=october_issue17.

National Conference

18. **Ramu, V.**, Shireesha, P. "**Survey on Classification of Components from Software Reuse Repository**" Mar-2017, Page No: 12–114, National Conference on Current Research Advances in Computer Science.
19. **Ramu, V.,** Shireesha, P. "**A Model for Cost Estimation Analysis for Software Reusable Components"**. 3rd National Conference on Emerging Technologies in Computer Science and Engineering – 2020, Page No:84–92.

20. **Dr.Ramu, V.,** Hanmanthu Bhukya. "**A Privacy Applicable Deep Learning Schemes for Big Data"**, International Conference on Computational Intelligence and Sustainable Development by Chitanya Deemed to be University, April, 2022.

Book Publications

1. **Dr Ramu, V.,** K.Deepthi, "Object Oriented Programming" published in July 2023 by Charulatha Publications with ISBN-13: 978-93-5577-536-8

Copyright

1. Secure Multi -Party Computation System for Privacy-Preserving Data Analytics, Registration No: 1202851

UGC AND FDP COURSES

1. Participated in Meity, Govt. of India Sponsored Faculty Development Programme (FDP) on "Software Engineering and Testing methodologies" organized by the E&ICT Academy, National Institute of Technology (NITW), Warangal at Department of computer Science and Engineering, NIT, Warangal from 5th may to 14th may,2017 (10 days)
2. Participated in Meity, Govt. of India Sponsored Faculty Development Programme (FDP) on "Software Project Management" organized by the E&ICT Academy, National Institute of Technology (NITW), Warangal at Department of computer Science and Engineering, NIT, Warangal from 2nd June to 7th June, 2017 (5 days)
3. Participated in Workshop on "Quality Assurance in Higher Educational Institutions and Industries" at KITS, Warangal from 19th July to 23rd July, 2017 (5 days)
4. Participated in National Workshop on "Design and Analysis of algorithms" Department of Computer Science, Kakatiya University, Warangal from 29th December to 30th December 2017 (2 days)
5. Participated in Two National Workshop on "Internet of Things (IoT)" University College of Engineering & Technology for Women, Kakatiya University, Warangal from 17th February to 18th February 2018 (2 days)
6. Participated in Meity, Govt. of India Sponsored Faculty Development Programme(FDP) on "Machine Learning" Organized by the E & ICT Academy, National Institute of Technology, Warangal from 12th March to 17th March, 2018 (6 days)
7. Participated in Two Week Faculty Development Programme (FDP) on "Block chain Technologies" Organized by Department of Computer Science and Engineering, SR Engineering College, Warangal from 17th June to 28th June 2019 (Two Weeks)
8. Participated in Two Week Faculty Development Programme (FDP) on "Machine Learning in Speech Processing" Organized by Department of Computer Science and Engineering, Kakatiya Institute of Technology & Science, Warangal from 11th November to 22nd November 2019 (Two Weeks)
9. Participated in Two Week Faculty Development Programme (FDP) on "Advances in Internet of Things" Organized by Department of Computer Science and Engineering, Kakatiya Institute of Technology & Science, Warangal from 12th December to 22nd December 2019 (Two Weeks)
10. Participated in Two Week Faculty Development Programme (FDP) on "Domain Specific Internet of Things and Illustration of IoTs Design Case Studies" Organized by Department of Computer Science and Engineering, Kakatiya Institute of Technology & Science, Warangal 9th January to 21st January 2020 (Two Weeks)

Online Faculty Development Programme:

11. Online Faculty Development Programme (FDP) on "Internet of Things (IoT)" from 11-05-2020 to 15-05-2020 at National Institute of Technology, Warangal.

12. 5 Days Online Faculty Development Programme (FDP) on “Innovative Trends in Data Analysis with AI” from 26-05-2020 to 30-05-2020. Presented by Codegnan IT Solutions. At Malineni Lakshmaiah Women’s Engineering College, Guntur.
13. One Week Faculty Development Programme (FDP) on “ An Innovative Research Trends in Data Science Using R Programming” from 26th to 31st May 2020 Organized by Department of Computer Science & Engineering, Santhiram Engineering College, Nandyal in Collaboration with Codegnan IT Solutions, Vijayawada.
14. One Week Faculty Development Programme (FDP) on “Data Science Using R Programming” from 12th to 17th June 2020 organized by Department of IT in association with Webtek Labs.
15. One Week Faculty Development Programme (FDP) on "Computer Science & Biology" from 2021-1-25 to 2021-1-29 at Kakatiya Institute of Technology & Science.
16. One Week Faculty Development Programme (FDP) on "Machine Learning Using R Programm" from 04.03.2021 to 10.03.2021 organized by Jyothishmathi Institute of Technology & Science, Nustulapur, Karimnagar, Telangnana.
17. One Month Faculty Development Program(FDP) on “Master Class on Python Programming” from 28-02-2022 to 29-03-2022 at Pantech e Learning Pvt Ltd, Chennai.
18. One Month Faculty Development Program(FDP) Coordinator on “Java Programming Master Class Series” from 11-04-2022 to 10-05-2022 Organized by SkillAp APSSDC in association with PANTECH E LEARNING.
19. One Month Faculty Development Program(FDP) Coordinator on “Machine Learning Master Class” from 25-05-2022 to 24-06-2022 Organized by SkillAp APSSDC in association with PANTECH E LEARNING.
20. One Week Faculty Development Program(FDP) on “Augmented & Virtual Reality with Data Science” from 06-06-2022 to 11-06-2022 Organized by Department of EXTC & CSE, P.R.Pote Patil College of Engineering & Management in association with PANTECH E LEARNING.
21. Participated 30 Days Masterclass on “REACT JS” organized by Pantech E Learning from 10th April 2023 to 12th May 2023
22. Participated Two Week National Level Virtual Workshop on “Advanced Research Methodology” organized by SRM 3rd to 18th July 2023
23. Participated One Week Faculty Development Program on “Data Visualization Using Tableau” organized by Department of Computer Science & Information Technology MLRIT from 24th to 28th July 2023.
24. Participated One Week National Level Faculty Development Program on “Cloud Infrastructure(AWS)” organized by Annamacharya Institute of Technology & Science(A), Kadapa from 21st to 25th August 2023

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status

A. Name: Mr. P Rajasekhar Reddy

B. Date of Birth: 15-06-1988

C. Institution: Malla Reddy Engineering College

D. Whether belongs to SC/ST: No

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Tech	Sri Krishnadevaraya University	Electronics and Communication Engineering
2	M.Tech	NIT Trichy	Communication Systems

Professional career:

F. Award/Prize/Certificate etc. won by the investigator: Nil

G. Publication (Numbers only): 2
Details of Papers, Books, General Articles, Patents if any

- Rajasekharreddy Poreddy and E S Gopi, "Improvement of accuracy of under-performing classifier in decision making using discrete memoryless channel model and Particle Swarm Optimization" in Expert Systems With Applications, Elsevier, vol. 213 (A), pp. 1-12, 2023 (SCIE).
- Rajasekharreddy Poreddy and E S Gopi, "Feature selection for vocal segmentation using social emotional optimization algorithm", in Socio-cultural Inspired Metaheuristics, Springer Singapore, pp. 69-91, 2019 (Scopus).

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
-	-	-	-	-

A. Name: Vasala Vinod kumar

B. Date of Birth 14/12/1993

C. Institution Malla Reddy Engineering College (A)

D. Whether belongs to SC/ST :yes

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Tech	JNTUH	Mining Engineering

2	M.Tech	MPUAT	Mine planning

Professional career:

F. Award/Prize/Certificate etc. won by the investigator:

G. Publication (Numbers only)
Details of Papers, Books, General Articles, Patents if any
Patent Application no 202241076936
Patent Application no 202341062841
H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status

A. Name: P.Uday

B. Date of Birth: 22-06-1993

C. Institution: Malla Reddy Engineering College

D. Whether belongs to SC/ST: YES

E. Academic and professional career:
(From Graduation to highest qualification level indicating subject and area of specialization – Enclose copy of certificate of highest qualification):

S.No	Degree	University	Specialization
1	B.Tech	Jawaharlal Nehru Technological University Hyderabad	Computer Science and Engineering
2	M.Tech	NIT Warangal	Computer Science and Information Security

Professional career:

F. Award/Prize/Certificate etc. won by the investigator: NIL

G. Publication (Numbers only)
Details of Papers, Books, General Articles, Patents if any
NIL

H. List of Completed/Ongoing and Submitted projects

Sl. No.	Name of the project and Reference No	Funding Agency/Division	Cost & Duration	Status
-	-	-	-	-

Anna University

Reg.No. 1115319705/RG

The Syndicate of the Anna University hereby makes known that **JOEL JOSEPHSON P** *has been admitted to the* **DEGREE OF DOCTOR OF PHILOSOPHY** *under the Faculty of Electrical Engineering, having been certified by the duly appointed examiners to be qualified to receive the same in the year* **2021.** *The degree has been awarded in compliance with the "University Grants Commission, Regulations 2009".*

Title of the Thesis:

DEVELOPMENT OF REALTIME SCHEDULER FRAMEWORK FOR TASK SCHEDULING IN MULTIPROCESSOR ENVIRONMENT

Given under the Seal of the University

Chennai 600 025
India
July 2022

Controller of Examinations

Registrar

Vice-Chancellor

Anna University

Reg.No.2011110005/RG

The Syndicate of the Anna University hereby makes known that **REX J** *has been admitted to the* **DEGREE OF DOCTOR OF PHILOSOPHY** *under the* **Faculty of Civil Engineering**, *having been certified by the duly appointed examiners to be qualified to receive the same in the year* **2017**. *The degree has been awarded in compliance with the* ***"University Grants Commission, Regulations 2009"***.

Title of the Thesis:

MECHANICAL PROPERTIES AND OPTIMIZATION OF LIGHTWEIGHT AGGREGATE CONCRETE CONTAINING QUARRY DUST

Given under the seal of the University

Chennai 600025
India
June 2018

Controller of Examinations *Registrar* *Vice-Chancellor*

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

KARNATAKA, INDIA

This is to certify that

S JAGADEESH BABU

has been conferred the Degree of

Doctor of Philosophy

in

FACULTY OF APPLIED SCIENCES (NANOTECHNOLOGY)

for the thesis entitled

SYNTHESIS AND CHARACTERIZATION OF BLACK TIO2 BASED NANOCOMPOSITES FOR PHOTOCATALYTIC HYDROGEN GENERATION APPLICATION

in recognition of the fulfillment of requirements for the said degree

PH 19 001843

Given under the seal of the University

USN: 5VX15PNJ04

BELAGAVI

DATE : MARCH 10, 2022

VICE CHANCELLOR

Sl. No. [redacted]

285257

Kakatiya University

Faculty of Science

This is to certify that *Ramu Vankudoth* son/daughter of *Basu* having pursued a course of study prescribed by this University and having passed the requisite examination by thesis, has been admitted to the degree of

Doctor of Philosophy

in Computer Science

The title of the thesis is:

A MODEL RECOMMENDER SYSTEM WITH EFFICIENT TAXONOMY OF SOFTWARE REUSABLE COMPONENTS

The candidate has been declared qualified for the award of the Degree of Ph.D. on 5/10/2021.

Given under the seal of the University

Warangal, Telangana State, India

Date : 05 January 2023

Vice - Chancellor

208111028

National Institute of Technology

TIRUCHIRAPPALLI - 620 015 INDIA

hereby confers the degree of

Master of Technology

in

COMMUNICATION SYSTEMS

on

RAJASEKHARREDDY POREDDY

for successfully completing the prescribed programme of study

and having been placed in

First Class With Distinction

Given this day the Third of August, 2013

Under the Seal of the Institute.

Registrar *Director* *Chairman, Board of Governors*

नामांकन संख्या / Enrolment No. 2017/CTAE/445 पंजीयन संख्या / Reg. No. 2017-04-04-70-07

महाराणा प्रताप कृषि एवं प्रौद्योगिकी विश्वविद्यालय
उदयपुर (राजस्थान) भारत
(राजस्थान विधानसभा के अधिनियम संख्या 8 वर्ष 2000 द्वारा स्थापित)

प्रौद्योगिकी -निष्णात् (खनन अभियांत्रिकी)
खनन नियोजन

प्रमाणित किया जाता है कि वासला विनोद कुमार ने इस विश्वविद्यालय के संघटक महाविद्यालय, प्रौद्योगिकी एवं अभियांत्रिकी महाविद्यालय, उदयपुर से फरवरी, २०२१ में प्रौद्योगिकी -निष्णात् (खनन अभियांत्रिकी) खनन नियोजन की उपाधि प्राप्त की। इन्होंने 7.49 / 10.00 औसत अंशांक बिन्दु तथा प्रथम श्रेणी प्राप्त की।

उपाधि पूर्ण करने की तिथि : ०६, फरवरी, २०२१

उपाधि प्रदान करने की तिथि : २० दिसम्बर, २०२१

Maharana Pratap University of Agriculture and Technology
Udaipur (Rajasthan) India
(Established by Rajasthan Legislative Assembly Act No. 8 of Year 2000)

Master of Technology (Mining Engineering)
Mine Planning

This is to certify that Vasala Vinod Kumar *obtained the degree of* Master of Technology (Mining Engineering) Mine Planning *from* College of Technology and Engineering, Udaipur, *a constituent college of this University in the Examination of* February, 2021 *with overall grade point average of* 7.49 / 10.00 *in* First *division.*

Date of Completion of Degree : 06 February, 2021

Date of Issue of Degree : 20 December, 2021

1999

कुलपति
Vice- Chancellor

1242

MSH No. M160444

National Institute of Technology Warangal

upon the recommendation of the Senate
hereby confers the degree of

Master of Technology

in

Computer Science and Information Security

on

Mr. Pilli Uday

(Roll No: 147566)

who has successfully completed the prescribed requirements for the award of the degree and passed the examination in **June 2016** *in* **First Division Only.**

Given under the seal of the National Institute of Technology Warangal in the Republic of India on the Third day of September Two Thousand Sixteen

CHAIRMAN
SENATE & BOARD OF GOVERNORS

ANNEXURE-II

CERTIFICATE FROM THE INVESTIGATORS

It is certified that

1. We agree to abide by the terms and conditions of the DST grant.
2. We did not submit this or a similar project proposal elsewhere for financial support.
3. We have explored and ensured that equipment and basic facilities will actually be available as and when required for the purpose of the project. We shall not require financial support under this project, for procurement of these items.
4. We undertake that spare time on permanent equipment will be made available to other users.
5. The proposed equipment is not available with the Host Institution
6. In case the Principal Investigator (PI) leaves the Institution, the Co-Investigator (Co-I) will assume the charge of the Investigator for completing the Project with prior approval of DST.
7. We understand that shifting of the sanctioned project from one institution to another institution due to change of the institution by the principal investigator/co-investigators is not allowed and is at sole discretion of DST, subject to submission of No Objection Certificate from the Host Institution by the PI.

We have enclosed the following materials.

Duly filled application form (complete with all Annexure)	
valid Registration Certificate/Trust Deed, MOA with Bye Laws, Annual reports & audited accounts of the organization for previous 3 years (only for NGOs)	
Letter of Support and tie up with S&T institutions – Mandatory for NGO'S	
Endorsement from Head of Institute and Certificate from Investigators (original)	

HYDERABAD, 12.10.2023.

1. Signature of Principal-Investigator with place and

2. Signature of Co-Investigator place and date

i. HYDERABAD 12.10.2023

ii. HYDERABAD 12-10-2023

iii. HYDERABAD 12-10-2023

iv. HYDERABAD 12-10-2023

v. Hydesabad 12-10-2023

vi. HYDERABAD 12-10-2023

ANNEXURE – V

POLICY ON CONFLICT OF INTEREST
(FOR REVIEWER & COMMITTEE MEMBER or APPLICANT or DST OFFICER ASSOCIATED/ DEALING WITH THE SCHEME/ PROGRAM OF DST)

Issues of Conflicts of Interest and ethics in scientific research and research management have assumed greater prominence, given the larger share of Government funding in the country's R & D scenario. The following policy pertaining to general aspects of Conflicts of Interest and code of ethics, are objective measures that are intended to protect the integrity of the decision making processes and minimize biases. The policy aims to sustain transparency, increase accountability in funding mechanisms and provide assurance to the general public that processes followed in award of grants are fair and non-discriminatory. The Policy aims to avoid all forms of bias by following a system that is fair, transparent and free from all influence/ unprejudiced dealings, prior to, during and subsequent to the currency of the programme to be entered into with a view to enable public to abstain from bribing or any corrupt practice in order to secure the award by providing assurance to them that their competitors will also refrain from bribing and other corrupt practice and the decision makers will commit to prevent corruption, in any form, by their officials by following transparent procedures. This will also ensure a global acceptance of the decision making process adopted by DST.

Definition of Conflict of Interest: Conflict of Interest means "any interest which could significantly prejudice an individual's objectivity in the decision making process, thereby creating an unfair competitive advantage for the individual or to the organization which he/she represents". The Conflict of Interest also encompasses situations where an individual, in contravention to the accepted norms and ethics, could exploit his/her obligatory duties for personal benefits.

Coverage of the Policy: The provisions of the policy shall be followed by persons applying for and receiving funding from DST, Reviewers of the proposal and Members of Expert Committees and Programme Advisory Committees. The provisions of the policy will also be applicable on all individuals including Officers of DST connected directly or indirectly or through intermediaries and Committees involved in evaluation of proposals and subsequent decision making process.

This policy aims to minimize aspects that may constitute actual Conflict of Interests, apparent Conflict of Interests and potential Conflict of Interests in the funding mechanisms that are presently being operated by DST. The policy also aims to cover, although not limited to, Conflict of interests that are Financial (gains from the outcomes of the proposal or award), Personal (association of relative / Family members) and Institutional (Colleagues, Collaborators, Employer, persons associated in a professional career of an individual such as Ph.D. supervisor etc.)

2. Specifications as to what constitutes Conflict of Interest: Any of the following specifications (non-exhaustive list) imply Conflict of Interest if,

(a) Due to any reason by which the Reviewer/Committee Member cannot deliver fair and objective assessment of the proposal.
(b) The applicant is a directly relative# or family member (including but not limited to spouse, child, sibling, parent) or personal friend of the individual involved in the decision making process or alternatively, if any relative of an Officer directly involved in any decision making process / has influenced interest/ stake in the applicant's form etc.
(c) The applicant for the grant/award is an employee or employer of an individual involved in the process as a Reviewer or Committee Member; or if the applicant to the grant/award has had an employer-employee relationship in the past three years with that individual.
(d) The applicant to the grant/award belongs to the same Department as that of the Reviewer/Committee Member.
(e) The Reviewer/Committee Member is a Head of an Organization from where the applicant is employed.
(f) The Reviewer /Committee Member is or was, associated in the professional career of the applicant (such as Ph.D. supervisor, Mentor, present Collaborator etc.)
(g) The Reviewer/Committee Member is involved in the preparation of the research proposal submitted by the applicant.
(h) The applicant has joint research publications with the Reviewer/Committee Member in the last three years.
(i) The applicant/Reviewer/Committee Member, in contravention to the accepted norms and ethics followed in scientific research has a direct/indirect financial interest in the outcomes of the proposal.
(j) The Reviewer/Committee Member stands to gain personally should the submitted proposal be accepted or rejected.

The Term "Relative" for this purpose would be referred in section 6 of Companies Act, 1956.

3. Regulation: The DST shall strive to avoid conflict of interest in its funding mechanisms to the maximum extent possible. Self-regulatory mode is however recommended for stake holders involved in scientific research and research management, on issues pertaining to Conflict of Interest and scientific ethics. Any disclosure pertaining to the same must be made voluntarily by the applicant/Reviewer/Committee Member.

4. Confidentiality: The Reviewers and the Members of the Committee shall safeguard the confidentiality of all discussions and decisions taken during the process and shall

refrain from discussing the same with any applicant or a third party, unless the Committee recommends otherwise and records for doing so.

5. Code of Conduct

5.1 To be followed by Reviewers/Committee Members:

(a) All reviewers shall submit a conflict of interest statement, declaring the presence or absence of any form of conflict of interest.
(b) The reviewers shall refrain from evaluating the proposals if the conflict of interest is established or if it is apparent.
(c) All discussions and decisions pertaining to conflict of interest shall be recorded in the minutes of the meeting.
(d) The Chairman of the Committee shall decide on all aspects pertaining to conflict of interests.
(e) The Chairman of the Committee shall request that all members disclose if they have any conflict of interest in the items of the agenda scheduled for discussion.
(f) The Committee Members shall refrain from participating in the decision making process and leave the room with respect to the specific item where the conflict of interest is established or is apparent.
(g) If the Chairman himself/herself has conflict of interest, the Committee may choose a Chairman from among the remaining members, and the decision shall be made in consultation with Member Secretary of the Committee.
(h) It is expected that a Committee member including the Chair-person will not seek funding from a Committee in which he/she is a member. If any member applies for grant, such proposals will be evaluated separately outside the Committee in which he/she is a member.

5.2 To be followed by the Applicant to the Grant/Award:

(a) The applicant must refrain from suggesting referees with potential Conflict of Interest that may arise due to the factors mentioned in the specifications described above in Point No. 2.
(b) The applicant may mention the names of individuals to whom the submitted proposal should not be sent for refereeing, clearly indicating the reasons for the same.

5.3 To be followed by the Officers dealing with Programs in DST:

While it is mandatory for the program officers to maintain confidentiality as detailed in point no. 6 above, they should declare, in advance, if they are dealing with grant applications of a relative or family member (including but not limited to spouse, child, sibling, parent) or thesis/ post-doctoral mentor or stands to benefit financially

if the applicant proposal is funded. In such cases, DST will allot the grant applications to the other program officer.

6. Sanction for violation

6.1 For a) Reviewers / Committee Members and b) Applicant: Any breach of the code of conduct will invite action as decided by the Committee.
6.2 For Officers dealing with Program in DST: Any breach of the code of conduct will invite action under present provision of CCS (conduct Rules), 1964.

7. Final Appellate authority: Secretary, DST shall be the appellate authority in issues pertaining to conflict of interest and issues concerning the decision making process. The decision of Secretary, DST in these issues shall be final and binding.

8. Declaration

I have read the above "Policy on Conflict of Interest" of the DST applicable to the Reviewer/ Committee Member/ Applicant/ DST Scheme or Program Officer # and agree to abide by provisions thereof.

I hereby declare that I have no conflict of interest of any form pertaining to the proposed grant*
I hereby declare that I have conflict of interest of any form pertaining to the proposed grant *

* & # (Tick whichever is applicable)

✓
Name of the ~~Reviewer~~/ ~~Committee Member~~ or Applicant or ~~DST Officer~~
(Strike out whichever is not applicable)

12/10/23.
(Signature with date)

ENDORSEMENT FROM HEAD OF THE INSTITUTE

It is certified that the project proposal titled "Socio economic and livelihood development with Bamboo handicrafts for Babjhari tribes in Narnoor Mandal, Adilabad District, Telangana".

1. Has not been submitted to any other agency/agencies for financial support
2. The scale of pay, allowance, etc. proposed are those admissible to persons of corresponding status employed in the Institute/University/NGO/Voluntary Organization, and are in accordance with the DST guidelines
3. It is agreed that any research outcome or intellectual property right(s) on the invention(s) arising out of the project shall be taken in accordance with the instructions issued with the approval of the Ministry of Finance, Department of Expenditure
4. The institute welcomes participation of **Dr. P.Joel Josephson** as the Principal Investigator and **Dr. J.Rex, Dr. S. Jagadeesh Babu, Dr.V.Ramu, Mr. P.Rajasekhar Reddy, Mr.V. Vinod Kumar & Mr.P.Uday** as the Co-Investigator for the project and that in the unforeseen event of discontinuance by the Principal Investigator, the Co-Investigator will assume responsibility of the fruitful completion of the project (with due intimation to DST).
5. In case the Principal Investigator (PI) leaves the Institution, the Co-Investigator (Co-I) will assume the charge of the Investigator for completing the Project with prior approval of DST.
6. The proposed equipment is not available with the Host Institution.

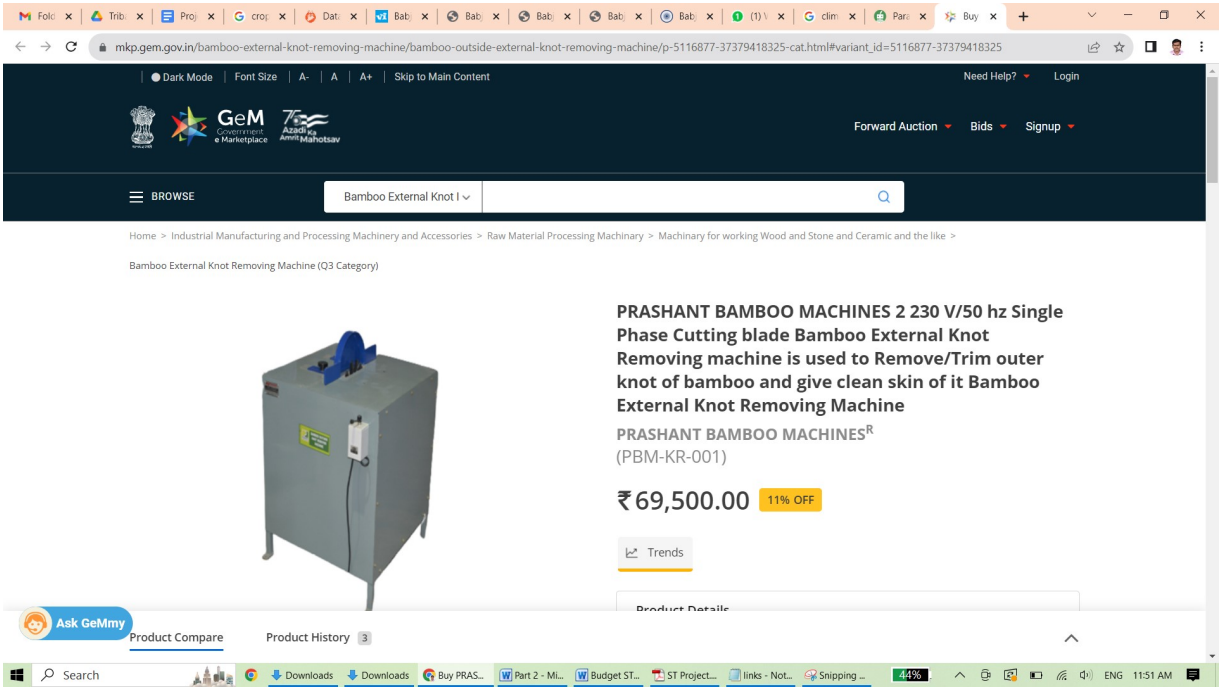
Signature of Executive Authority
of Institute/ University with Seal with date

Principal
Malla Reddy Engineering College
Maisammaguda, Dhulapally,
(Post Via Kompally), Sec'bad-500100

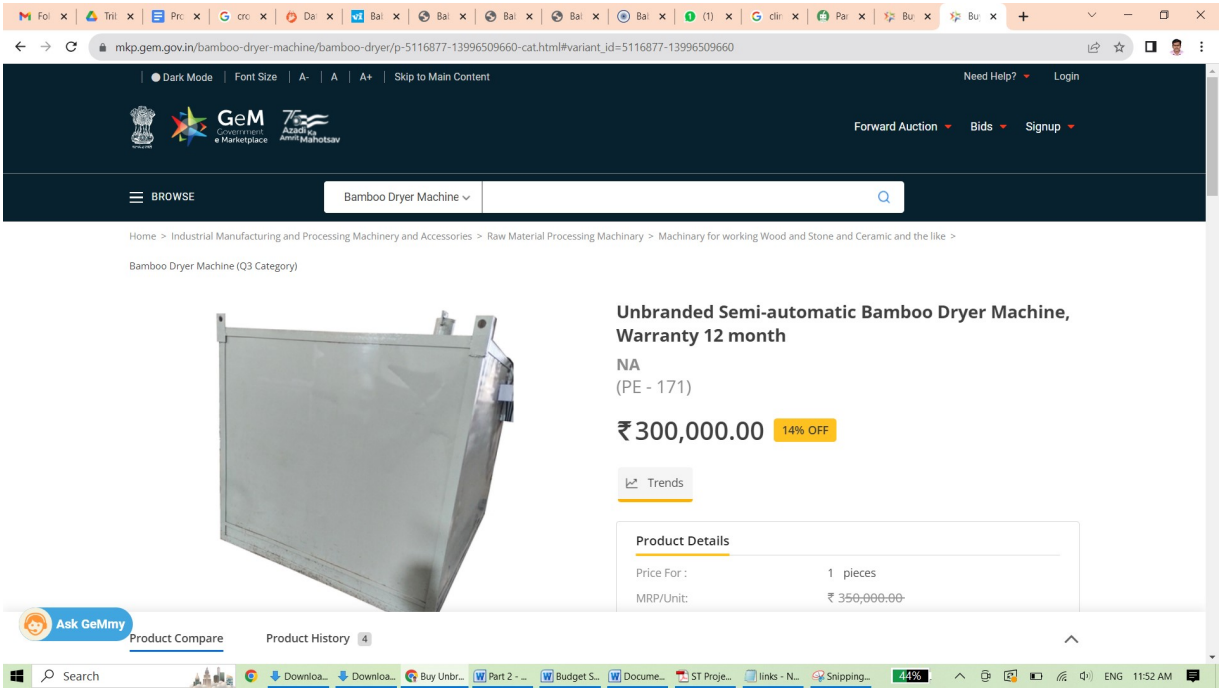
1. Signature of Principal-Investigator with place and date
   Dr. P.Joel Josephson 30/10/23 (Hyderabad)

2. Signature of Co-Investigator place and date
   i. **Dr. J.Rex** 30/10/23
   ii. **Dr. S. Jagadeesh Babu**
   iii. **Dr. V.Ramu** 30/10/23
   iv. **Mr. P.Rajasekhar Reddy** 30/10/23
   v. **Mr.V. Vinod Kumar**
   vi. **Mr.P.Uday** 30/10/23

Malla Reddy Engg. College (A) Secunderabad 500 100



Bamboo Cutting Machine



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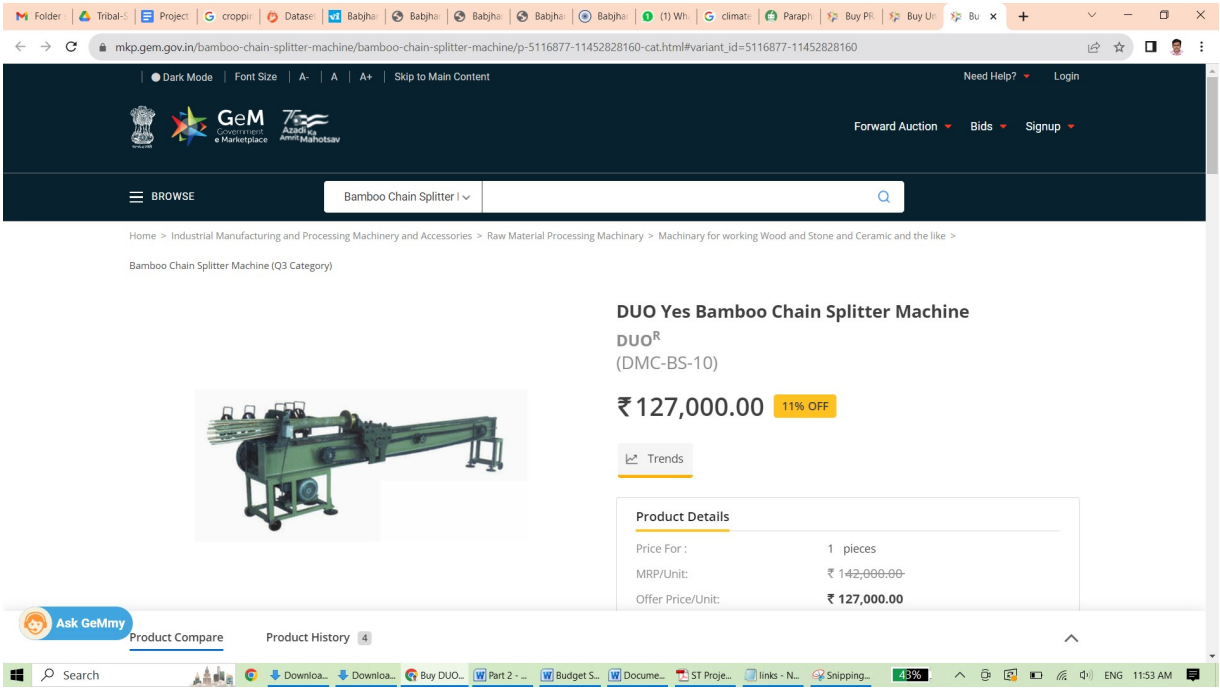
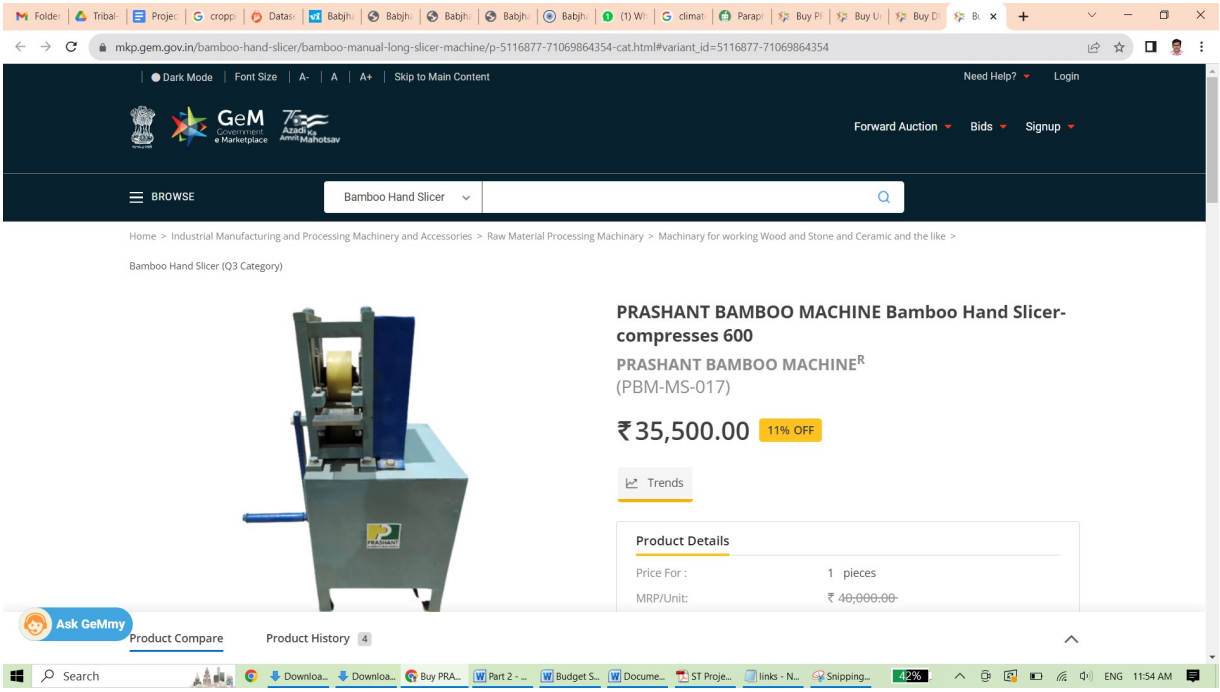


Bamboo Chain Splitter Machine



Bamboo Slicer