



**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
AN AUTONOMOUS INSTITUTION**

Accredited by NBA and NAAC with 'A+' Grade.

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTU H)
Medbowli, Meerpet, Balapur, Hyderabad, Telangana – 500 097

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**TKR CENTRE FOR
RESEARCH & INNOVATION**

A CONFLUENCE FOR CREATIVE METAMORPHOSIS

OVERALL ACHIEVEMENTS



STANDARD OPERATING PROCEDURE FOR DISSEMINATION OF CONSULTANCY REVENUE AT TKRCET(K9)

1 Introduction and Background

1.1 Context

1.2 Regulatory Framework

2 Definitions

2.1 Key Terms

2.2 Stakeholder Categories

3 Revenue Sharing Mechanism

3.1 Distribution Structure

3.2 Allocation of Stakeholder Share

3.3 Accounting Procedure

4. Roles and Responsibilities

4.1 Institutional Duties

4.2 Stakeholder Obligations

5 Implementation Process

5.1 Workflow for Revenue Dissemination

5.2 Timelines

6 Reporting and Monitoring

6.1 Documentation

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Request

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CONSULTANCY-PROJECTS

Project Title: “Synchronous Reluctance Motor Design and Development with Pulse Regulatory Module for Motor Operation”

Client: Windstream Energy Technologies India Pvt. Ltd.

Institution: TKR College of Engineering and Technology

Date: 26/11/2024

Prepared by: R&D TKRCET

Principal Investigator: DR.D.V.RAVI SHANKAR

Team Members: MD.QUTUBUDDIN,A.VENKATESH

CONSULTANCY PROJECTS

- **Design a Synchronous Reluctance Motor (SynRM):** Optimize performance characteristics through advanced material selection, geometry design, and rotor-stator configuration.
- **Develop a Pulse Regulatory Module:** Ensure reliable pulse generation, modulation, and regulation to control SynRM operations, including speed and torque adjustment.
- **Electromagnetic Simulation:** Validate the motor's design using advanced simulation techniques and optimize parameters for maximum efficiency.
- **Prototype and Test:** Build a physical prototype of the motor and subject it to real-world testing to ensure compliance with the design specifications.
- **Transfer Intellectual Property Rights (IPR):** Upon completion of the project and reimbursement of **INR 16.6 lakhs**, transfer all IP to Windstream Energy Technologies.

TKRCET Projects Sanctioned From External Funding Agency

| S.No | Name of the Dept. | Name of the Principal Investigator/ Co Investigator | Funding Agency | Title of the Project | Tenure | Amount | Year | Status |
|------|-------------------|---|--|---|--------|--------|---------|-----------|
| 1 | EEE | Dr. K. B. Raju | AICTE Ref No. 8024/RI FD/MOD-304/2010-11 | EEE MODROBS | 1 Y | 12.8 L | 2010-11 | Completed |
| 2 | S&H | Dr. B. Rajini Kanth | DST SERB New Delhi File No. SR/FTP/PS-108/2009 | Determination of MFIS on CoNiAl FSMAs for Sensors and Actuators | 3 Y | 17.04L | 2012-15 | Completed |
| 3 | S&H | Dr. B. Rajini Kanth | UGC Travel Grant, New Delhi | Effect of Composition on Elastic moduli for a CoNiAl system | 7D | 1.4L | 2015-16 | Completed |
| 4 | ME | Dr. Suresh Akella / Dr. D.V.Ravi shankar | TEQIP-III, JNTUH Procs. No. JNTUH/TEQIP-III/CRS/2019/MECH/08 | Development of mobile Air conditioner with Eco friendly refrigerant 134a | 1 Y | 3L | 2020-21 | Completed |
| 5 | ME | Dr. M. A. Mateen | AICTE, New Delhi | Three day FDP on 3D Printing and Design | 3 D | 93k | 2020-21 | Completed |
| 6 | CSE | Dr. B. Sunil Srinivas | TEQIP-III, JNTUH Procs. No. JNTUH/TEQIP-III/CRS/2019/CSE/13 | Automatic Diagnostic Model for Detection of Malaria parasites from Microscopic images | 1 Y | 2.98 L | 2020-21 | Completed |
| 7 | CSE | Dr. A. Suresh rao / Dr. B. Vishnu vardhan | TEQIP-III, JNTUH Procs. No. JNTUH/TEQIP-III/CRS/2019/CSE/11 | Minimalistic Approach to Predict Cardiovascular Diseases using various risk factors that go undiagnosed till advanced stages | 1 Y | 2.6L | 2020-21 | Completed |
| 8 | ECE | Dr. M. Girish Kumar | DST SERB New Delhi File No. SRG/2021/001392 | Quality of Signal Improvement in Prominent GNR/FET based ternary logic system for futuristic dielectric inserted MLG/NRs for Integrated Circuit Designs | 2 Y | 13.46L | 2021-23 | Completed |

ANNEXURE-I : TKR COLLEGE OF ENGINEERING AND TECHNOLOGY (HI)

APPROVED IDEAS AND THEIR STATUS

| S/no | Name of HI | Name of Principal | Name of person In-charge Of BI | Mobile Number & Email ID for Communication | No of ideas Approved | | Sanctioned Amount (in lakhs) | Expenditure Incurred (in lakhs) | Remarks if any |
|------|---|----------------------|--------------------------------|--|----------------------|---|------------------------------|-----------------------------------|----------------|
| 1 | TKR COLLEGE OF ENGINEERING & TECHNOLOGY | Dr.D.V. RAVI SHANKAR | Dr.B. RAJINI KANTH | 7893092879 rajinikanth@tkrcet.com | Hackathon 1.0 | 2 | 12.75 + 8 | COMPLETED | |
| | | | | | Hackathon 2.0 | 0 | - | | |
| | | | | | Hackathon 3.0 | 0 | - | | |
| | | | | | Hackathon 4.0 | 1 | 15 Lakh | Document submitted to PMAC office | |
| | | | | | Total | 3 | 35.75 LAKH | | |

Projects Completed under MSME Idea Hackathon (2022) Host Incubation Centre (TKR College of Engineering and Technology)

| Sl. No | Name of the Incubatee | Name of the Mentor | Funding Agency | Title of the Project | Tenure | Amount | Status |
|--------|--------------------------|---|----------------|---|---------|--------|-----------|
| 1 | Perike Enosh | Dr.D.V.Ravi shankar, Professor, TKRCET | MSME | Unmanned surface vehicle for defense and civilian application | 2 years | 20.0 L | Completed |
| 2 | Boddukanti Karthik Kumar | Mr. Rajeev Kumar/ Dr.G.Gopala Krishna Professor, TKRCET | MSME | Smart wearables for rescuers and victims | 2 years | 8.0L | Completed |

Project Sanctioned under MSME 4.0 Idea Hackathon (2024) Host Incubation Centre (TKR College of Engineering and Technology)

| Sl. No | Name of the Incubatee | Name of the Mentor | Funding Agency | Title of the Project | Tenure | Amount | Status |
|--------|-----------------------|---|----------------|---------------------------------------|---------|--------|------------------|
| 1 | Katikola Karthik | Mr.Md Shakeel, Asst.Professor, TKRCET | MSME | AI Driven Drouisness Detection system | 2 years | 15.0 L | Approved by PMAC |

MSME Hackthon-4:
Reference No:**IDEATS019613**
Katikola karthik

Title: “AI-Driven Multimodal Drowsiness Detection System”.

- **Total idea/project cost (Rs in lakh): 15 lakhs.**
- The 9th PMAC held on 24/06/2025 has approved this idea for GoI grant: Approved By PMAC.

STARTUPS ESTABLISHED UNDER TKRCET R&D (800 SFT)

| Sl.No | Name of the Startup | Name of the Entrepreneur | Funding Agency | Title of the Project | Tenure | Amount | Status |
|-------|------------------------|--------------------------|----------------|-----------------------------------|-----------|-------------|-----------|
| 1 | REVON UNMANNED SYSTEMS | Perike Enosh & Santhosh | DRDO | UMMANNED SURFACE VEHICLE | 12 MONTHS | 8.98 L | COMPLETED |
| | | Perike Enosh & Santhosh | TSIC | Establishment of Startup | | 5,00,000 /- | ongoing |
| 2 | EPIT | Vadluri Varun | IIT H | DRIVE CARE SYSTEM | 1 YEAR | 25 L | ON GOING |
| | | | | MOBINAV | 1 YEAR | 10 L | COMPLETED |
| | | | | LONGER RANGE COMMUNACATION SYSTEM | 1 YEAR | 6 L | COMPLETED |

STARTUPS ESTABLISHED UNDER TKRCET R&D (800 SFT)

| Sl.No | Name of the Startup | Name of the Entrepreneur | Funding Agency | Title of the Project | Tenure | Amount | Status |
|-------|---------------------|--------------------------|-------------------|----------------------|----------|------------|----------|
| 3 | DRDR TECHNOLOGIES | Perike Kavya | Maharashtra Govt. | Agricultural Rover | 6 months | 15,00,00/- | ON GOING |
| 4 | AMENT CAPIAL | HEMANTH GUNTAKA | DATA SOLUTIONS | SOFTWARE DEVELOPMENT | 2 YEAR | - | ON GOING |

TKRCET is accorded with Host Incubation Center During the year 2020

Host Institute (HI) / Business Incubator (BI) Reference No. :- HIBITS000630

| | | | |
|------|----------------------------|---------------------|---|
| PMAC | 05/Jan/2020 06:06:34 PM | Approved By PAMC | Host institute approved in principle. It has been decided that no money for Grant for Plant and Machinery shall be released to any Host institute till at least 2 ideas are approved for that HI. Ideas needs to be submitted with the following information within 15 days hereof: --What is the problem you are solving, please describe? --Explain the solution proposed? -- Describe the product/service ? Identify the sector to which the product/services relates to ? -- What is the unique/innovative /competitive aspect of the product/service --Please let us know, the market target customers positioning of the product. -- Please explain the business plan from seeding, development to commercialization -- Background of the person who all are part of the team working on the project - -Please explain the detailed economics, funding requirement expenses income plan over the next 5 years after start Please attach the Product/ service documentation. View/Download |
|------|----------------------------|---------------------|---|



Congratulations to

Dr. M. Girish Kumar
Assoc. Prof. in ECE Dept.
TKR College of Engineering & Technology

**Got Approval of Startup
Research Grant
from SERB, DST.**



Institutional achievements

Dr. M Girish Kumar has received grant from **DST SERB** under **Start-up Research Grant** of Rs. 13,46,400/- for project titled “ Quality of Signal Improvement in Prominent GNRFET based Ternary Logic System for Futuristic Dielectric Inserted MLGNRs for Integrated Circuit Designs”.

The Institution has set up the Institute Innovation Council in collaboration with AICTE and MoE

The faculty from this institution who acquired their PhDs are 12 in number from all the departments.

TKR COLLEGE OF ENGINEERING & TECHNOLOGY (Autonomous) NAAC 'A' GRADE

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- Mr. Perike Enosh got an approval from **MSME** (under **IDEA Hackathon 2022** of Rs. 12,75,000/- for implementing project on “Smart Wearables for Rescuers and Victims”.



- Mr. Boddukanti Karthik Kumar got an approval from **MSME** under **IDEA Hackathon 2022** of Rs. 8,00,000/- for implementing project on “Unmanned surface vehicle for defense and civilian application”.

Engineer's Low-Cost Harvester Clears Stones, Makes Land Cultivable in Hours

By Himanshu Nitnaware

August 19, 2021



A Mechanical Engineering Graduate From TKR college of engineering and technology, He is under mentoring of TKR CENTER FOR REASEARCH AND DEVELOPMENT.

He already utilised 12.75 Lakhs through MSME product incubation grant. This PROJECT IS SELECTED FOR NIDHI PRAYAS Seed fund to an extent of Rs. 50.Lakhs

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY ENTREPRENEUR'S



One of the standout honourees was Deepak Reddy, founder of Bhaumya Innovations Pvt. Ltd., based in Narayanakhed, Telangana. His startup is rooted in the vision of transforming agriculture through user-friendly, high-quality tech solutions. Bhaumya's mission to empower the farming community while promoting sustainability is an inspiring model for future technopreneurs.



Another proud moment was Sri Charan Lakkaraju, the visionary behind StuMagz and a Forbes 30 Under 30 Asia 2018 honoree. A dynamic entrepreneur, angel investor, mentor at T- Hub and WE Hub, and author of DAD, Sri Charan's journey from the EEE Department (2006–2010) to becoming a national figure exemplifies the heights that dedication and innovation can achieve.



Enosh, founder of Revon Unmanned Systems Pvt. Ltd., was also recognized for his impactful work in developing high-performance unmanned systems. From VTOL UAVs to agricultural rovers and unmanned surface vehicles (USVs), his team's cost-effective, autonomous solutions are transforming defense, agriculture, and mapping industries with cutting-edge design and efficiency.



Sai Krishna Alishala, Founder & CEO of ElitCeler Technologies Pvt. Ltd., was honored for his entrepreneurial success, while Ms. N. Prathushya, currently serving as an SI of Police in Telangana, was applauded for her dedication to public service and inspiring representation of women in law enforcement.



Hemanth Kumar Reddy Guntaka(2012-16) CEO Ament Capital is a pioneering asset management and venture capital firm headquartered in Hyderabad, India, committed to identifying and cultivating high-growth opportunities with a strong focus on sustainability and value creation.



Breaking barriers in defense, Naga Likitha from the CSE department was recognized for her selection into the Indian Navy — a proud first for the institution.



Ms. Musham SreeLatha, currently serving as an SI of Police in Telangana, was applauded for her dedication to public service and inspiring representation of women in law enforcement