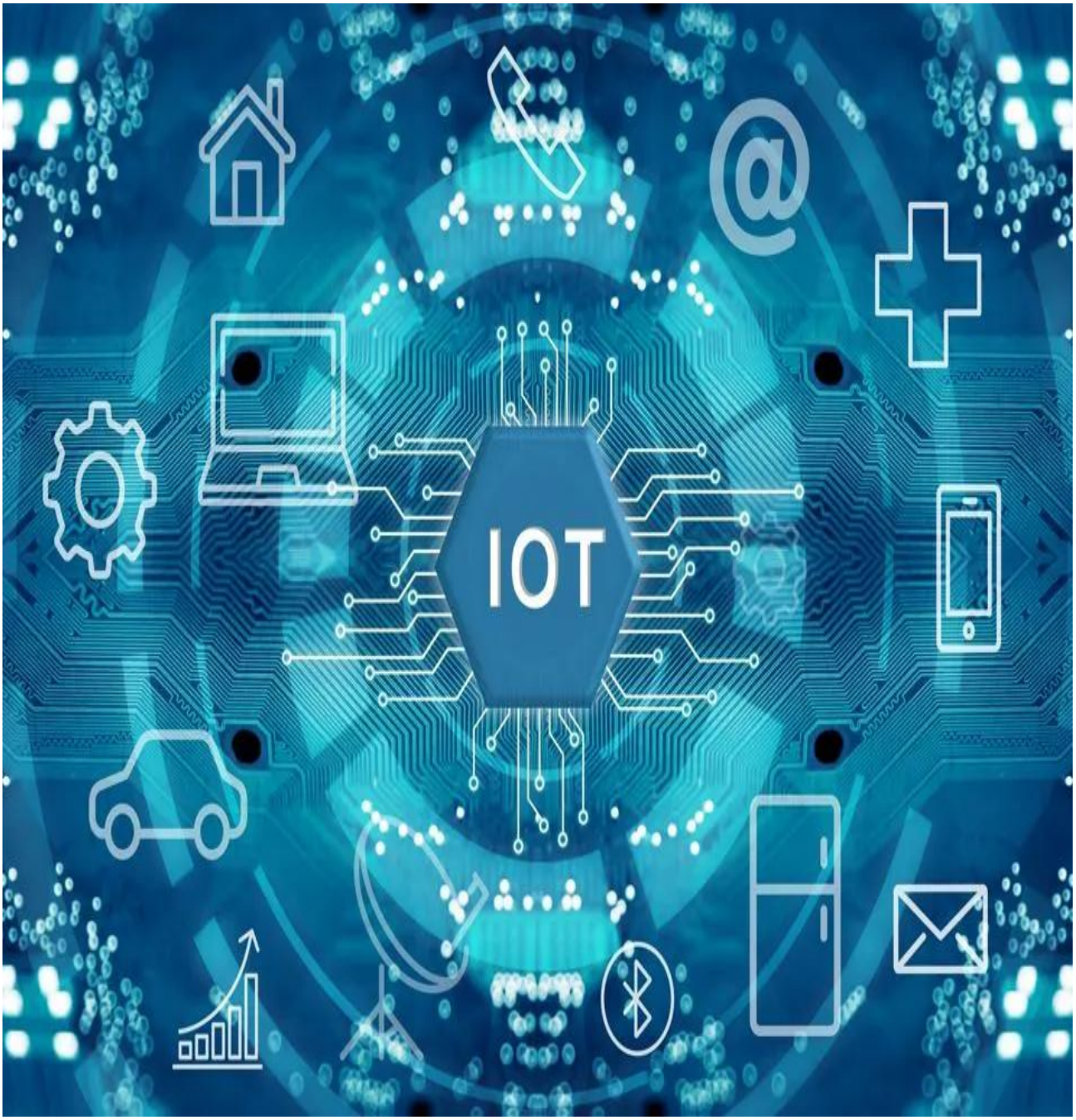
IoT RESEARCH CENTER

.. **Empowering the Connected Future Through Research and Innovation**



Dr. Raju Anitha
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ABOUT THE LAB

The **IoT Research Center** is a leading innovation hub dedicated to shaping the future of the Internet of Things (IoT) by pioneering cutting-edge research, fostering innovative solutions, and developing breakthrough technologies. As global reliance on interconnected devices grows exponentially, the need for advanced, secure, and scalable IoT systems becomes critical. Our center is at the forefront of this technological revolution, ensuring that IoT's transformative potential is realized across industries and sectors worldwide.

Through collaborative efforts with academic institutions, industry leaders, and government bodies, the IoT Research Center aims to push the boundaries of what is possible in the interconnected world. Our work spans from creating new IoT architectures and protocols to developing practical applications that address real-world challenges—redefining how industries operate, how cities manage resources, and how people interact with technology.

VISION

To lead innovation in IoT by developing cutting-edge solutions that seamlessly integrate the physical and digital worlds through interdisciplinary expertise.

MISSION

- Advance IoT Knowledge: Promote the growth and understanding of IoT technologies.
- Develop Smarter Systems: Create more intelligent, efficient, and sustainable systems through IoT innovations.
- Bridge Research and Application: Translate research findings into real-world applications, ensuring practical impact.
- Contribute to Industry Standards: Aid in the development and evolution of industry standards and practices through innovation.

OBJECTIVES

- ✓ Enhance IoT Research: Conduct innovative research to explore new possibilities in IoT technologies.
- ✓ Develop Efficient Solutions: Design and implement IoT systems that improve efficiency, sustainability, and connectivity.
- ✓ Promote Industry Collaboration: Foster partnerships with industry stakeholders to ensure research findings are translated into practical, real-world applications.
- ✓ Set Industry Benchmarks: Contribute to the development of new standards, practices, and guidelines to elevate industry norms.

- ✓ Empower Future Innovators: Educate and mentor the next generation of IoT researchers and professionals by providing cutting-edge knowledge and tools.
- ✓ Drive Sustainability: Focus on creating IoT solutions that contribute to global sustainability efforts and reduce environmental impact.

KEY RESEARCH DOMAINS

The IoT Research Center's research initiatives cover a wide range of focus areas, each dedicated to addressing the pressing needs of different industries. Our efforts focus on both foundational IoT technologies and domain-specific solutions that address practical challenges across sectors.

Smart Cities

We envision cities where everything from streetlights to public transportation is interconnected and optimized in real-time. Our research in smart cities focuses on:

- ✓ **Traffic Management**: Developing IoT solutions to monitor and manage traffic flow, reducing congestion and emissions.
- ✓ **Energy Efficiency**: Implementing IoT systems to optimize the use of energy in buildings and public spaces, improving sustainability.
- ✓ **Environmental Monitoring**: Using IoT to track air quality, noise levels, and water usage to improve urban living standards.

Healthcare IoT

The integration of IoT into healthcare is revolutionizing patient care and the healthcare system. Our research focuses on:

✓ Wearable Health Devices: Developing IoT-enabled wearable technology that continuously monitors vital signs and health parameters.
✓ Remote Patient Monitoring: Creating secure IoT systems that allow doctors to monitor patients remotely, reducing the need for frequent hospital visits.
✓ Telemedicine Solutions: Expanding the reach of healthcare services through IoT-based platforms, allowing doctors and patients to connect from anywhere in the world.

Industrial IoT (IIoT)

Industrial IoT applications are transforming factories and supply chains by enabling automation, efficiency, and predictive analytics. Our work in this area focuses on:

✓ Predictive Maintenance: Using IoT sensors to monitor machinery and

Agricultural IoT

The agricultural industry is benefiting from IoT through precision farming techniques and environmental monitoring systems that increase crop yields and sustainability. Our key projects include:

- ✓ Precision Farming: Utilizing IoT sensors to monitor soil conditions, weather patterns, and crop health, enabling farmers to make informed decisions in real-time.
- ✓ Water Resource Management: Implementing IoT systems that optimize irrigation and water usage, reducing waste and improving agricultural output.
- ✓ Livestock Monitoring: Tracking the health and behavior of livestock through IoT devices, ensuring optimal animal welfare and productivity.

Retail and Consumer IoT

The retail sector is rapidly embracing IoT to enhance customer experiences, optimize operations, and improve supply chain efficiency. Our research in this field focuses on:

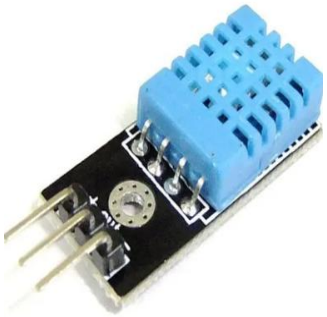
- ✓ Smart Inventory Management: Developing IoT-powered inventory systems that track stock in real-time and optimize reordering processes.
- ✓ Enhanced Customer Experiences: Utilizing IoT to personalize shopping experiences, such as through location-based services and tailored promotions.
- ✓ Supply Chain Transparency: Providing IoT solutions that improve tracking and monitoring of products from manufacturer to store, ensuring efficiency and reducing delays.

INFRASTRUCTURE AND FACILITIES

The **IoT Research Center** is equipped with cutting-edge infrastructure and advanced facilities designed to support high-impact research, innovation, and development of next-generation IoT technologies. Our comprehensive set of resources and tools enables researchers, industry partners, and students to design, develop, simulate, and test IoT systems in a state-of-the-art environment. The facilities are structured to cover all aspects of IoT research, from hardware prototyping to cloud-based simulations and data analysis, ensuring the seamless transition of ideas from concept to implementation.

Hardware and Devices

Sensors: Temperature, humidity, motion, light, and pressure sensors



a) Temperature Sensor

b) Wireless Humidity Sensor

c) Light Sensor d)Pressure Sensor

Fig1: VARIOUS SENSORS

NETWORKING EQUIPMENT

- ✓ **Routers and Switches**: For setting up a local network to connect devices.

Fig2: Router

- ✓ **Gateways**: Devices that connect IoT devices to the internet.

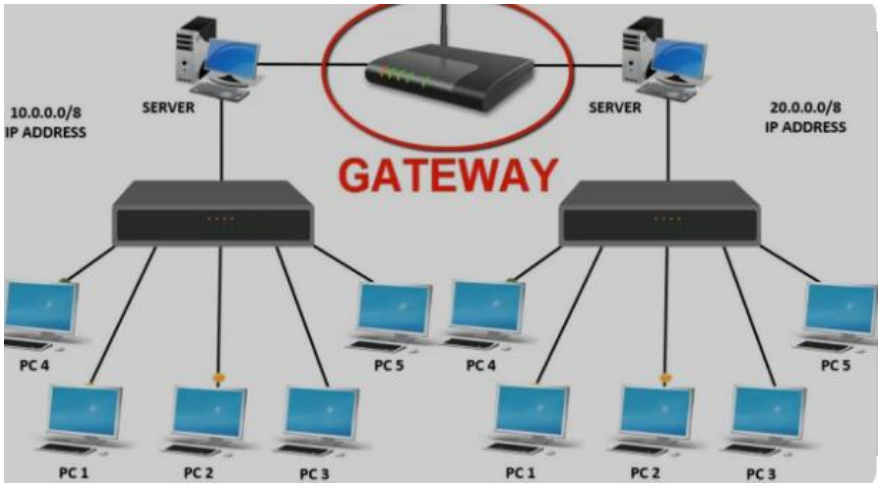


Fig 3: Working of GATEWAY

- ✓ **Communication Modules**: Wi-Fi, Bluetooth, Zigbee, LoRaWAN, and cellular modules for device connectivity.

Software and Development Tools

- ✓ Integrated Development Environments (IDEs): Such as Arduino IDE, PlatformIO, and Visual Studio Code.
- ✓ Simulation Tools: Software for modeling and simulating IoT networks (e.g., MATLAB, NS3).
- ✓ Cloud Platforms: Access to platforms like AWS IoT, Azure IoT, or Google Cloud IoT for data storage and analytics.

Fig 4: Software Development Tools

Data Analytics and Visualization Tools

- ✓ **Analytics Software**: Tools for processing and analyzing IoT data (e.g., , R, Tableau).
- ✓ **Dashboards**: Custom dashboards to visualize real-time data and analytics.

Fig5: Data Analytics and Visualization Tools

Testing and Measurement Equipment

- ✓ **Oscilloscopes and Multimeters**: For measuring electrical properties and diagnosing issues.
- ✓ **Network Analyzers**: To evaluate the performance and security of IoT networks.

Collaboration Spaces

- ✓ **Meeting Rooms**: For brainstorming sessions and collaborative projects.
- ✓ **Presentation Facilities**: For showcasing research findings and prototypes

Fig6: Collaboration Spaces

Access to Expertise

- ✓ Mentorship Programs: Opportunities to work with experienced professionals in IoT research.
- ✓ Workshops and Seminars: Regular training sessions on the latest technologies and trends.

Fig 7: Access to Experts

PROJECTS

The Internet of Things in Agriculture: A Smart Farming Revolution

Objective: To monitor soil conditions (moisture, pH, and temperature) and provide data-driven recommendations for irrigation and fertilization.

Implementation:

- ✓ Setup Sensors: Place soil moisture, pH, and temperature sensors at different locations in the field.
- ✓ Data Acquisition: Use a microcontroller to collect data from the sensors at regular intervals.
- ✓ Data Transmission: Send the data to a cloud platform using Wi-Fi or cellular connectivity.
- ✓ Data Analysis: Implement algorithms to analyze the data and generate recommendations for irrigation and fertilization.
- ✓ User Interface: Develop a web or mobile app for farmers to monitor soil conditions and receive alerts.

Fig 8: Field Observation to setup Sensors

- **Precision Agriculture: Real-Time Disease Detection in Tomato Crops Using IoT**

  Precision agriculture is transforming the way farmers manage their crops by utilizing advanced technologies to enhance productivity and sustainability. This project focuses on developing a real-time disease detection system for tomato crops using IoT (Internet of Things) technologies. By integrating IoT devices with machine learning algorithms, farmers can monitor crop health and identify diseases early, enabling timely interventions.

  Objective:

  To implement an IoT-based system for real-time monitoring of tomato crops.

Fig9: Moving of Robot in the Field
VideoLink:https://drive.google.com/file/d/1aLHxH00MjHP7ubk8WVQ5X9-gsDSz2ypX/view

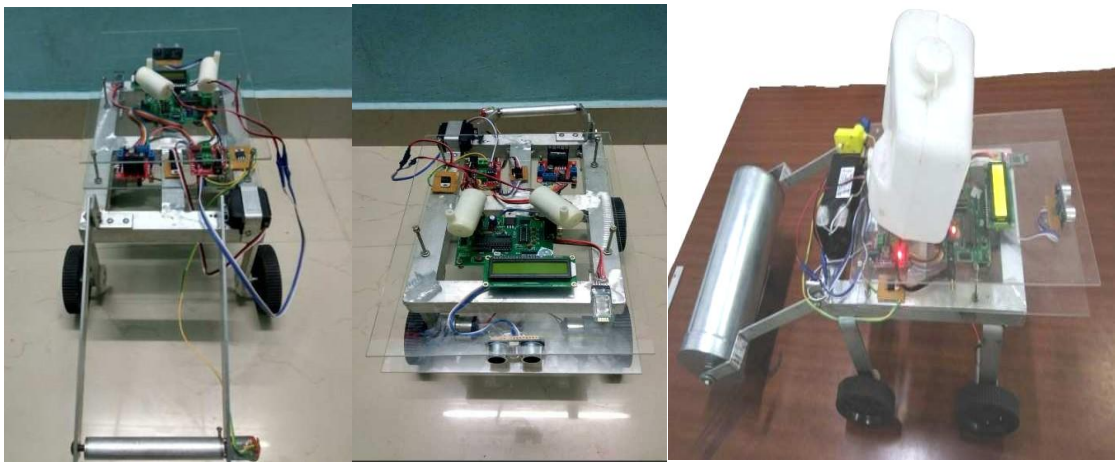


Fig 10: Fabricated Model of Robot

Developing a smart energy grid system for sustainable urban environments

The primary objective of developing a smart energy system for a sustainable urban environment is to optimize energy consumption, enhance energy efficiency, and integrate

renewable energy sources. This system aims to reduce greenhouse gas emissions, promote sustainable practices, and improve the overall quality of life in urban areas.

- **Implementing IoT-based predictive maintenance in manufacturing processes**.

The objective of implementing IoT-based predictive maintenance in manufacturing processes is to enhance operational efficiency, minimize downtime, and reduce maintenance costs through real-time monitoring and data analytics

- **Designing wearable health monitoring devices for chronic disease management.**

The objective of designing wearable health monitoring devices for chronic disease management is to empower patients to actively participate in their healthcare through continuous monitoring, personalized insights, and timely interventions.

Fig 11:Different wearable devices developed for various applications

TEAM MEMBERS

Dr.V.Srikanth
Professor
Department of CSE

Dr.K.Amarendra
Professor
Department of CSIT

Dr.M.Srinivas
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Mr.Lakshma Reddy
Assistant Professor
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Dr.Sridhar
Assoicate Professor
Department of CSE

Dr.JallaluddinKhan
Associate Professor
Department of CSE

MOUS

Phyceth, Bangalore

SIEMENS TECHNOLOGY AND SERVICES PRIVATE LIMITED

BANGALORE

RESEARCH RECORD

No.Of Research Publications: 120

No.of Conferences: 50

No.of Workshops:40

No.of Patents:5

No.of Parttime Schalors:20

No.of Full time Schalors:1

No.of Schlors Awarded:5

No.of Books Published:3

No.of Book Chapters:7

No.of Awards: 4

No.of Citations: 1021

No.of Conferences Organized:1

Government Funded Projects Applied:2

No.of Faculty Deputed for Postdoc: 1

Consultancy Projects:10

RESEARCH PROFILE Of RESEARCH HEAD

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About

Dr.Raju Anitha Received the Ph.D. Degree in Computer Science from Sri Padmavathi Mahila Vishwavidyalayam, Tirupati in 2017.She has 20 Years of Teaching Experience. She is currently working as Associate Professor in Koneru Lakshmaiah Education Foundation, Vaddeswaram, and Andhra Pradesh. She is the Research Head in IoT in this Organization and published Forty three Papers in various Reputed Journals. She achieved the Global Certification in Microsoft Azure Administrative and Solution Architech.Her Research includes Image Processing, Machine Learning and IoT.

PUBLICATIO

- RAFT to Improve Failure Recovery in Wireless Sensor Networks,2024,International Journal of Intelligent Systems and Applications in Engineering,2024
- Advancements in Speech-Based Emotion Recognition and PTSD Detection through Machine and Deep Learning Techniques: A Comprehensive Survey,2024,2024
- PA FUZZY-NOISE REMOVAL IN WIRELESS SENSORS NETWORKS,Scalable Computing,2024.
- A Novel Path Recovery Framework to Accurate Data Transmission in Web Sensor Networks,International Journal of Intelligent Systems and Applications in Engineering,2024.
- Speech based emotion recognition by using a faster region-based convolutional neural network,Multimedia Tools and Applications,2024
- A novel adaptive dual swarm intelligence based image quality enhancement approach with the modified SegNet - RBM-based Alzheimer Segmentation and classification,Multimedia Tools and Applications,2024.
- Enhancement of classification and prediction accuracy for breast cancer detection using fast convolution neural network with ensemble algorithm,International Journal of Computational Science and Engineering,2023
- An Efficient Unsupervised Learning Approach for Detecting Anomaly in Cloud,Computer Systems Science and Engineering,2023.
- Feature Extraction based Breast Cancer Detection using WPSO with CNN, International Journal of Advanced Computer Science and Applications , 2021.
- An efficient algorithm for movie recommendation system" , Advances in Parallel Computing ,2021Published a Paper

- Finding state of mind through emotion and sentiment analysis of the twitter text",Advances in Parallel Computing,2021.
- Covid-19 sentiment analysis using deep learning and machine learning, Advances in Parallel Computing,2021.
- Person identification using face and speech recognition for visually challenged with mask detection, Advances in Parallel Computing,2021.
- Maize grain quality classification using convolutional neural network, Advances in Parallel Computing,2021.
- A novel dual encryption algorithm to enhance the security in image transmission using LSB 3-2-2 technique, Advances in Parallel Computing,2021.
- Secure Data Hiding Techniques Using Image Steganography & Cryptography" Review of International Geographical Education Online, 2021
- Classification of Diabetic Retinopathy Using PSO Clustering and Raspberry Pi, IGI Global,2021,
- A Generic Recommender System for Continuous Optimization based on Deep Neural Network" Annals of the Roman Society for cell Biology (20201) .
- Person Identification Using Face and Speech Recognition for Visually Challenged" Solid State Technolgoy,Volume 64,Issue no :2(2021)
- Pattern mining technique derived ant colony optimization for document information retrieval", Journal of Ambient Intelligence and Humanized Computing (2021
- An efficient VLAN implementation to decrease traffic load in a network ",IJACSE (2020).
- Credit card Fraud Detection using Machine Learning Algortihms"TEST ENGINEERING(2020)
- An Electro encephalographic signal Classification in Large Data Set using Deep learning Techniques" International Journal of Emerging Trends in Engineering Research,voume 8,Issue 10 (2020)
- A review on bioinformatics using data mining techniques",Journal of Physics: Conf. Series 1228 (2019) 012023,doi:10.1088/1742-6596/1228/1/012023.
- Energy Driving Assistance for Debilitating Drivers",International Journal of Advanced Technology,2019,ISSN:2249-8958,volume-8,Issue-8,Issue-4,April.
- Published a paper "IoT Based Water Level Meter",IEEE Digital Explorer,2018.
- Published a paper "Data Stream Development and Applications" ,International journal of Innovative Technology and Exploring Engineering,ISSN :2278-3075,Volume-8,Issue-8,June 2019..

- An Adaptive Slide Window Security Method for Transaction Updation in Data Stream Mining"

- Conceptual FOG Based Architecure for Monitoring ansAceleration of Bone Fracture",International Journal of Recent Technology and Enterprising,ISSN:2277-3878,Volume-8,Issue1S4,June 2019.
- Detection of noxious gases by implementing internet of things technology",International Journal of Engineering&Technology (UAE),Volume 7,Issue 2,2018,pp.18-22.
- IoT based smart and flexible lightning in streets",International Journal of Engineering&Technology(UAE),Volume 7,Issue 2,2018,pp:291-294.
- An automated SMS –Update System through IoT using raspberry PI" ,International Journal of Mechanical and Engineering Technology,volume 9,Issue 1,January 2018,pp.118-124.

- Deep learning image processing technique for early detection of alzheimer's disease, International journal of Advanced Science& Technology",Volume 107, 2017, Pages 85-104,November 2017.
- A Structural Magnetization Transfer Imaging In Schizophrenia Patients with Major Depressive Disorder",International Journal of Advanced Scientific Technologies, Engineering and Management Sciences (IJASTEMS-ISSN:2454-356X)Volume.3,Special Issue.1,May.2017.
- A Segmentation Technique To Detect The Alzheimer's Disease Using Image Processing , IEEE Digital Library 2016.
- An Efficient Barcode Classification Using Morphological Operations,IEEE Digital Library 2016.
- Implementing Ranking Model using EIRQ Schemes in cost Efficient Clouds,International Journal of Advanced Technology and Innovative Research, ISSN: 2348-2370, vol.07, Issue09, 2015.
- Effective Method To Extract BrainTissues Using Image Processing IRD INDIA ISSN: 2319-2526, Vol-4,Issue-2,201

CONFERENCE

- A Blended Learning Approach To Enhance The Quality Of Education In Higher EducationInstitutions,2-Day National Virtual Conference "Innovative mechanisms & standards for

- Assuring Quality in Higher Education Institutions (IAQHEI)" On 29th – 30th January, 2021 Organized by IQAC Internal Quality Assurance Cell ASC Academic Staff College,KLEF.
- Detection of Diabetic retinopathy using PSO clustering Variants and raspberry Pi a two day international conference on computational and Bio Engineering ,4th and 5th December 2020 organized by Sri padmavathi Mahila Visvavidyalayam ,women's university,Tirupati.
- Early diagnosis of schizophrenia disorder using structural MRI" at two day national level conference held on 12th&13th April 2017, Dr. M.G.R Educational and Research Institute University, Chennai.
- A structural Magnetization Transfer imaging in Schizophrenia patients with major Depressive disorder" at International Conference on Advances in computing Electrical and communicationEngineering (ICAECEC-2017),held on 10th&11thMarch 2016,PACE.
- An Efficient Color DNA Barcode Identification using Image Processing Techniques" at International Conference on computing for sustainable Global Development, BVICAM, New Delhi,2016.
- A Segmentation Technique to detect the Alzheimer's disease Using Image Processing,at International Conference on Electrical, Electronics and Optimization Techniques (ICEEOT)- 2016, DMJ College, Chennai.
- An efficient Method to extract Brain Tissue in Schizophrenia patient Using Image Processing Techniques at National Level Conference on Science for Smart Technologies ,SV&SPMVV University,Tirupati,2016.
- DNA Barcode Classification of Penaied Prawn Species on Indo French seminar in women in science through CEFIPRA Organized by IISC Bangalore,2015.
- An Effective Method To extract Brain Tissues Using Image Processing at International Conference on Recent Trends &Innovations in Engineering Technology (ICRTIET-15),2015.
- Canny Edge detection Techniques using Image processing on International Conference at SPMVV,Tirupati.
- Security Enhancement to Low cost User Authentication Schema for Mobile Communication onInternational Conference at Andhra University, Vizag,2009.

WORKSHOPS AND

- A Fve Day Faculty Development Program on "AI INDUSTRY 4.0" Organized by the Signal Processing Research Group,In Association with IETE Student Chapter,Vijawada ,KL Deemed to be University.
- A one Week AICTE sponsored short term training Program (STTP) on computational techniques organized by Sagar insttute of Research and technology,Bhopal from 2nd to 7th November 2020
- A one Week International Faculty Devlopment Program on "MEMS based sensors and Actuators for Biomedical applications" organized by Micro-Electronics Research Group(MERG) ,KLEF,2nd November 2020 to 7th November 2020.
- A Two week AICTE sponsored online Faculty Development Program on "professional Morals,work Ethics&Accountability for Teachers in Technical Education" Organized by Velagapudi Ramakrishna Siddhartha Engineering collece ,Department of CSE during 19th October to 31st October 2020.
- A one Week Hands on Faculty Development Program on "Artificial Intelligence using Python" organized by Brainnovision solutions India pvt.Ltd&National Youtth counsil of INDIA held from 14th Septmeber to 19the September 2020.
- A one day National level awareness workshop on "Outcome Based Education and Accreditation" organized by Raisoni Institute of Engineering &Technology,Nagpur on 11th Sep 2020.
- A Three day National level Faculty development Program on SPSS&ORIGIN organized by SPMVV,Tirupathi on 29th August to 31st August 2020.
- A Five Day Faculty Development program on Block chain Technology&its applications organized by KLEF from 29th June 29th to 3rd July 2020.
- A one week Faculty Development Program on **"Faculty Development program for student Induction (FDP-SI)"** during 10th-16th December 2019 organized by AICTE.

- A Five Days Faculty Development Program on **"Advanced Deep learning Techniques"**

  Organized by the E&ICT Academy, NIT Warangal from 13th-18th May 2019.

- ✍ A five Days Faculty Development Program on "**Database Design and Programming with SQL**" organized by ORACLE ACADEMY and certified on 7th December 2018.

- ✍ A five Days Faculty Development program on "**Database Foundation**" organized by ORACLE ACADEMY and certified on 30th November 2018.
- ✍ A one Week Program on **Organization Behavior** conduct by NIITTAR on 16th November 2018, organized by NIT Warangal.
- ✍ A One day National workshop on "**Effective Presentation Skills** ", organized by the Academic staff college, KLEF, Vijayawada on 12th October 2018.
- ✍ A one Day workshop on "**Effective and Appropriate Teaching Pedagogies**" Organized by Academic staff college, KLEF, Vijayawada ,9th October 2018.
- ✍ A one Day workshop on "**FORMATING AND DOCUMENTATION ON RESEARCH**

  PAPER", Organized by the Academic staff college KLEF, Vijayawada, October 2018.
- ✍ A Five Days Faculty Development Program on "**JAVA Foundations**", held at KLEF, Vijayawada in association with ORACLE ACADEMY and Certified, June 2018.
- ✍ Attended a Workshop on"**Android App Development**" by GOOGLE held at KL Deemed to be University, Vijayawada, 2018.(23rd April to 27th April).
- ✍ A one Week Faculty Development program on "**Internet of Things**" held at KLUniversity, Vijayawada in association with NIT Warangal November 2017.
- ✍ A one week Faculty Development program on "**Advanced wireless Networks**" held at

  N.B.K.R Institute of Science Technology, Vidyanagar in association with NIT Warangal, April 2017.
- ✍ An International Workshop on "**Indo French college de France Innovation workshop**"

  held at NIAS, Bangalore, 2016.
- ✍ A Three Day National Level Workshop on **"HADOOP**" held at RISE Krishna sai group of Institutions, Ongole,2016.

- A National Level workshop on "**Feature Extraction and classification Techniques for pattern Recognition and Machine Learning Techniques**" held at PVP Engineering College,Vijayawada,2015
- A Two day National Level Workshop on" **Interactive Ethical Hacking-cyber Security**" held at PACE Institute of Technology&Sciences,Ongole,2015.
- An International Workshop on "**Big Data &Machine Learning**" held at RISE Krishnasai Group of Institutions, Ongole, 2014.
- A Faculty Training workshop on" **Information Security &Cyber Forensics (Level-2)**" held at PACE Institute of Technologyy&Sciences, Ongole,2014.
- A Faculty Development Program on "**Effective Methods of Teaching**" held at PACE Institute of Technology Sciences, Ongole, 2014.
- A National Level Workshop on"**Network Simulators-2"** held at PACE Institute of Technology&Sciences,Ongole,2012.
- A National Level Workshop on "**Cyber Security &Malware Analysis (Level-1)**" held at PACE Institute of Technology& Sciences, Ongole, 2012.
- A National Level Workshop on"**Research Methodologies**" held at PACE Institute

of Technology &Sciences, Ongole, 2012.

- ✍ A National Level Workshop on "**Server Administration**" held at PACE Institute of Technology& Sciences, Ongole, 2011.
- ✍ *One Day State Level workshop on "**Teaching Learning Methodologies**" held at PACE Institute of Technology &Sciences, Ongole, 2011.*
- ✍ *One day national Level Workshop on "**Women Empowerment thro, awareness of health, hygienic & Nutrition**" held at JNTU Kakinada, 2011.*
- ✍ *A National Level Workshop on"**Information Security &Cyber Forensics**" held at IIT Kharagpur, 2011.*
- ✍ A National Level workshop on "**Data Structures**" held at RAO&NAIDU Engineering College,Ongole, 2011.
- ✍ *A National Level workshop on "**Data Mining and Ware***

MEMBER

QIS Engineering College, Ongole, 2008.

- Member in IEANG
- Member in SDIWC.
- Member in IFERP.

REVIEWE

1. ASIAN JOURNAL OF RESEARCH IN COMPUTER SCIENCE
2. INTERNATIONAL JOURNAL OF COMPUTING AND DIGITAL SYSTEMS.
3. HELIYON, AN OPEN ACCESS JOURNAL FROM CELL PRESS

AWARDS AND

- Received Certificated of World Book Recard for appreciated for the outstanding achievement in the field of Computer Science for the Academic Year 2023-2024.
- Received a **Best Teacher Award** for the Academic Year 2021-2022 at KL Deemed to be University.
- Received Appreciation Award for Book Publication in the Academic Year 2020-2021 at KL Deemed to be University from Women's Forum.
- Received a **Best Teacher Award** for the academic Year 2017-2018 at KL Deemed to be University.
- Received Feed Back appreciation certificate from KL Deemed to be University.
- Received an Appreciation certificate for being a Reviewer for AICTE sponsored 3rd International conference on Computational Intelligence& Data Engineering, Organized by Vasari College of Engineering, Hyderabad during 8th August to 9th August 2020
- Received an Appreciation certificate for Delivering Online distance learning for Discrete mathematics during May-June

2020

PATENT

- "SYSTEMS AND METHODS FOR PTSD DETECTION USING HIERARCHICAL SPEECH EMOTION RECOGNITION", Application No.202441036870 A Published on 17/05/2024
- "A NOVEL HETROGENEOUS ENSEMBLE CLASSIFIER TO IMPROVE PREDICTION ACCURACY FOR EARLY DIAGNOSIS OF THE BREAST CANCER" Application No.202241012133 published on 18-03-2022.
- "SMART EYEWEAR WITH READING ASSISTIVE SYSTEM" Application No.201941049771 A published on 13/12/2019

BOOK

- Fundamentals of Digital Image Processing with ISBN number 9789390785223 ,Walnut Publications

FUNDED PROJECTS

- A Government funded Project Entitled "Estimation of Brain Tissue in Schizophrenic Patients using Magnetization Transfer Imaging" Ongoing Project for a period of 3 Year 0 Month at a total cost Rs. 19 Lakhs sanctioned from DST, June 2016 under the scheme of WOS-A.
- Improving the Socio-Economic Status for Sc Community Through Millet Crops Disease Free Cultivation and Process the Value-Added Products,under the Scheme of DST/SCSP.

FACULTY RESEARCH PROFILES

Satish, Thatavarti

K L Deemed to be University, Vaddeswaram, India 57200213538 https://orcid.org/0000-0002-5646-3448 View more

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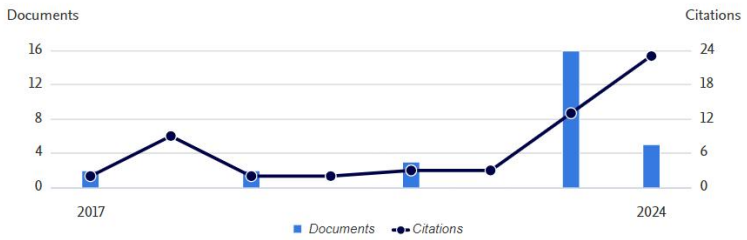
Document & citation trends



Most contributed Topics 2019–2023

Hyperspectral Image; Support Vector Machine; Independent Compo Analysis
2 documents

Computer Assisted Tomography; Lung Nodule; Image Segmentation
2 documents

Air Pollution; Monitoring System; Internet of Things
2 documents

Anitha, Raju

K L Deemed to be University, Vaddeswaram, India 57192104713 https://orcid.org/0000-0002-3786-7308 View more

158	43	7	View more metrics >
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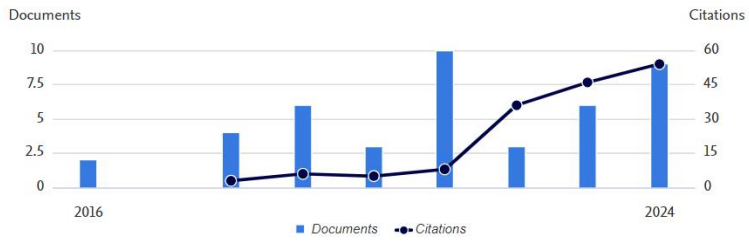

Most contributed Topics 2019–2023

Social Networking (Online); Sentiment Classification; Data Mining
2 documents

Market Forecasting; Neural Network; Commerce
2 documents

Breast Cancer; Support Vector Machine; Machine Learning
2 documents

Aggarwal, Kapil

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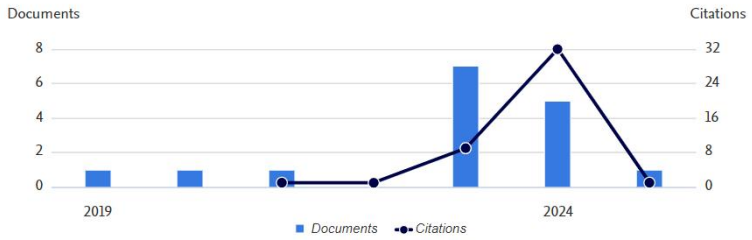

Most contributed Topics 2019–2023

Android; Malware; Static Program Analysis
1 document

Internet of Things; Wireless Sensor Network; Network Security
1 document

Support Vector Machine; Decision Trees; Machine Learning
1 document

Sreenivasa Rao, Vuda

K L Deemed to be University, Vaddeswaram, India 58491997100 https://orcid.org/0009-0003-7833-4529 View more

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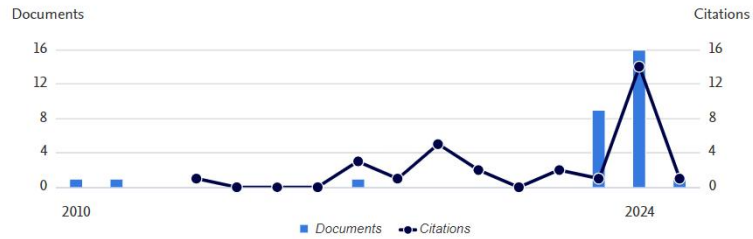

Most contributed Topics 2019–2023

Generative Adversarial Networks; Deep Learning; Image Synthesis
1 document

Cyber Physical Systems; Embedded Systems; Industry 4.0
1 document

Skin Defect; Nodular Melanoma; Dermatology
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Khan, Jalaluddin

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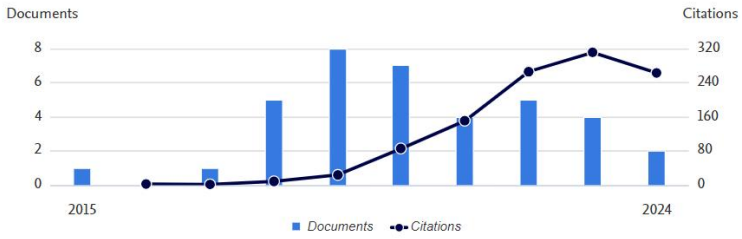

Most contributed Topics 2019–2023

Image Encryption; Chaotic Systems; Cryptography
5 documents

Support Vector Machine; Decision Trees; Machine Learning
5 documents

Breast Cancer; Support Vector Machine; Machine Learning
2 documents

Srithar, S. S.

K L Deemed to be University, Vaddeswaram, India 57216782120 https://orcid.org/0000-0001-9479-1883

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Sign Language Recognition; Convolutional Neural Network; Gesture Recognition
3 documents

Hand Gesture Recognition; Human Computer Interaction; Image Processing
2 documents

Data Security; Cloud Storage; Authentication
2 documents

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Srikanth, V.

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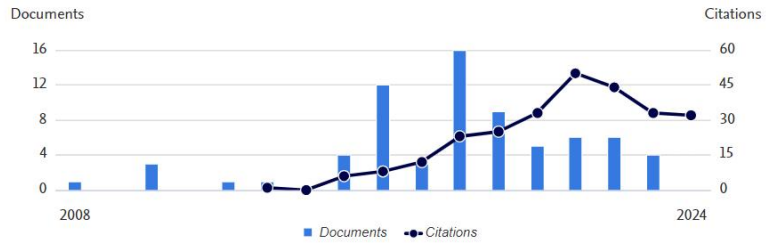

Analyze author output Citation overview

Most contributed Topics 2019–2023

Support Vector Machine; Decision Trees; Machine Learning
4 documents

Heuristic Algorithm; Feature Selection; Mathematical Optimizat
2 documents

Fraud Detection; Credit Card; Machine Learning
2 documents

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Srinivas, Malladi

K L Deemed to be University, Vaddeswaram, India 7102823705 https://orcid.org/0000-0002-5431-0990 View more

151	41	5	View more metrics >
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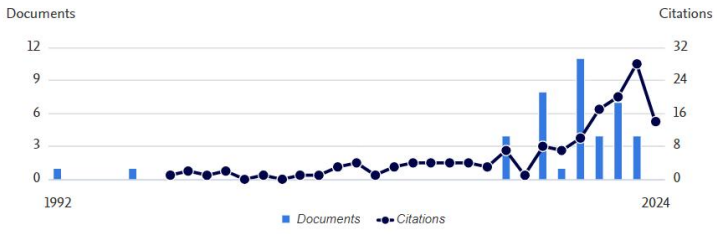

Most contributed Topics 2019–2023

Vehicular Ad-hoc Network; Data Privacy; Network Security
4 documents

Mobile Ad-hoc Network; Mobile Security; Routing Protocol
3 documents

Defect Prediction; Computer Software Selection and Evaluation; Sc Engineering
2 documents

Kothalanka, Amarendra

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176	62	7	View more metrics >
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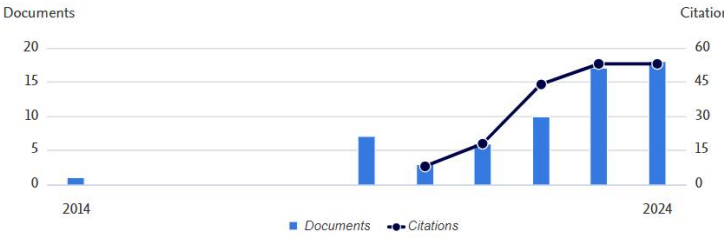

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Most contributed Topics 2019–2023

Wireless Sensor Network; Energy Efficiency; Data Aggregation
6 documents

Neural Network; Deep Learning; Image Processing
3 documents

Internet of Things; Deep Learning; Image Enhancement
3 documents

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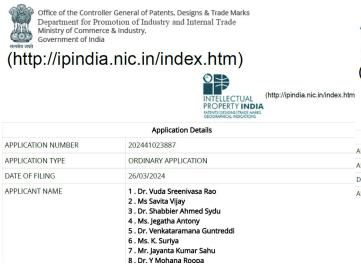
PATENTS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Ministry of Commerce & Industry,
Government of India
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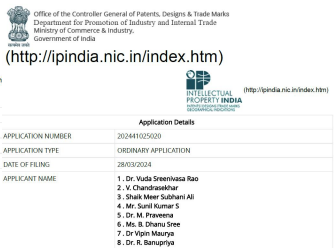
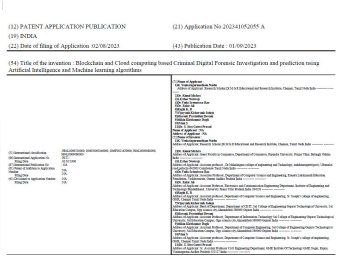
INTELLECTUAL PROPERTY INDIA (http://ipindia.nic.in/index.htm)

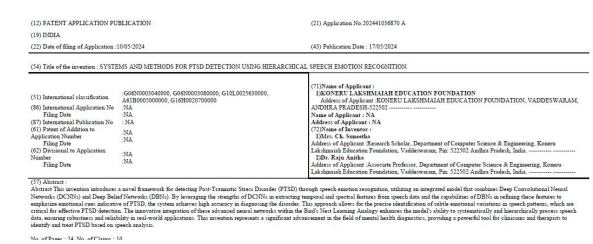
Application Details	
APPLICATION NUMBER	202441023887
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	26/03/2024
APPLICANT NAME	1 . Dr. Vuda Sreenivasa Rao 2 . Ms Savita Vijay 3 . Dr. Shabbier Ahmed Sydu 4 . Ms. Jegatha Antony 5 . Dr. Venkataramana Guntreddi 6 . Ms. K. Surlya 7 . Mr. Jayanta Kumar Sahu 8 . Dr. Y Mohana Roopa

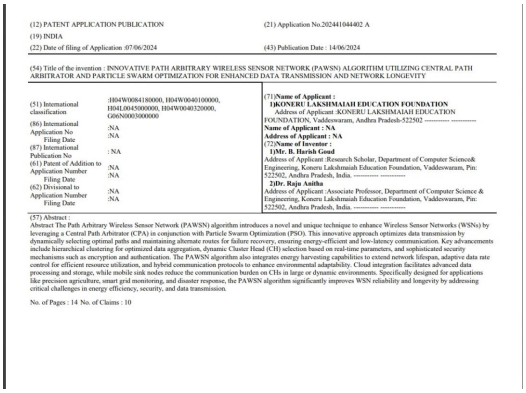

Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India
(http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA (http://ipindia.nic.in/index.htm)

Application Details	
APPLICATION NUMBER	202441025020
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	28/03/2024
APPLICANT NAME	1 . Dr. Vuda Sreenivasa Rao 2 . V. Chandrasekhar 3 . Shaik Meer Subhani Ali 4 . Mr. Sunil Kumar S 5 . Dr. M. Praveena 6 . Ms. B. Dhanu Sree 7 . Dr Vipin Maurya 8 . Dr. R. Banupriya


(12) PATENT APPLICATION PUBLICATION (21) Application No.202441052055 A
(19) INDIA
(22) Date of filing of Application :02/08/2023 (43) Publication Date : 01/09/2023
(54) Title of the invention : Blockchain and Cloud computing based Criminal Digital Forensic Investigation and prediction using Artificial Intelligence and Machine learning algorithm


(12) PATENT APPLICATION PUBLICATION (21) Application No.202441056870 A
(19) INDIA
(22) Date of filing of Application :10/05/2024 (43) Publication Date : 17/05/2024
(54) Title of the invention : SYSTEMS AND METHODS FOR PTSD DETECTION USING HIERARCHICAL SPEECH EMOTION RECOGNITION


(12) PATENT APPLICATION PUBLICATION (21) Application No.202441044402 A
(19) INDIA
(22) Date of filing of Application :07/06/2024 (43) Publication Date : 14/06/2024
(54) Title of the invention : INNOVATIVE PATH ARBITRARY WIRELESS SENSOR NETWORK (PAWSN) ALGORITHM UTILIZING CENTRAL PATH ARBITRATOR AND PARTICLE SWARM OPTIMIZATION FOR ENHANCED DATA TRANSMISSION AND NETWORK LONGEVITY

COUNSULTANCY

SKYDROP

Sanction Order

Date: 22.09.2020

To
Dr. Raju Anitha,
Associate Professor,
Dept of Computer Science and Engineering,
KLEF, (Deemed to be University),
Vaddeswaram, Guntur- 522502.

Sub: Approval of the Consultancy Project- **A study on Conceptual Overview of Data Mining Classification and Security** - Reg.

With reference to your above proposal submitted for financial support, we accept your proposal and sanction the amount of Rs. 1,68,288/- for 5 Months duration and the fund is being transferred through online mode in favour of Registrar KLEF.

Kindly acknowledge the receipt of the payment.

Aiboz R&D Private Limited
Regd Office: 402, Raghava Towers, 3/1, Panduranga Nagar, Guntur, Andhra Pradesh, India, 522034.
E-Mail:aibozresearch@gmail.com

Dated: 31.03.2023

Sanction Order

To,
Dr. S. Srithar,
Assistant Professor,
Dept of Computer Science and Engineering,
Koneru Lakshmaiah Education Foundation,
Vaddeswaram, Guntur (Dt).

Sub: Sanction of Consultancy Work '**AWS hosted Serverless Mobile Store Management System using React JS and MongoDB**'-reg.

We are delighted to inform you that your project dated 18-01-2023 has been approved based on its merit and the available facilities at your institute. The approved budget for the project is Rs. 2,84,700/-, and the duration is set at 5 months. It is expected that the project objectives will be achieved within the specified timeframe.

We congratulate you on receiving this consultancy work and look forward to the successful implementation and completion of work.

RG Industries

GST-37BXIPA3871912V

Sanction Order

Date: 24.09.2021

To
Dr.Malladi Srinivas,
Professor,
Department of Computer Science and Engineering,
KLEF (Deemed to be University),
Vaddeswaram, Guntur- 522502

Subject: Sanction of Consultancy Project entitled "**A Web Application using JAVA Full Stack and AWS Technologies**" - Reg

With reference to your letter dated 14.07.2021, we accept your proposal titled "**A Web Application using JAVA Full Stack and AWS Technologies**". The approved budget is Rs. 1,69,492/- for the duration of 3 Months. We are sending the payment through Online mode in favour of Registrar, KLEF. Request you to submit the Utilisation Certificate, Statement of Expenditure and Project Completion Report after completion of the Project. Kindly acknowledge the receipt of the payment. We expect to deliver valuable results, and we look forward to the positive impact of your project.

Regards,

RESEARCH

Dr.R.Saravan Kumar
Associate Professor
Saveetha School of Engineering

Dr.S.Pradeep
Associate Professor
MallaReddy Engineering College

Dr.Ranjeet
Assoicate Professor
VIT,Chennai

Dr. C. Bazil Wilfred
KIT,Coimbatore

LIST OF RESEARCH SCHOLARS

S. No	Register No	Name of the Scholar

1	163030097	SABBU SUNITHA
2	163030108	Sunitha Ishwar UShirge
3	173030071	Vadde Usha
4	193030120	Durvasi Gudivada
5	2102031027	Vinod Kumar Hemanth Bhutnal
6	2102031028	KIRANMAI PEDDAKASULA
7	2102031054	N SUJATA GUPTA
8	2102031069	SUDESHNA S
9	2102031073	R. Bhavani
10	2202031151	B. Sekhar
11	2202031153	A. Siva Kumar
12	2302031048	Seelam Visweswara Rao
13	2302031064	Karri Srujana
14	2202031153	A.Siva Kumar
15	2102031073	R. Bhavani
16	2102031069	SUDESHNA S
17	2102031054	N. Sujata Gupta
18	2202031003	B. Lokesh
19	2102031028	Peddakasula Kiranma
20	2102031027	Vinodkumar Bhutnal
21	2002031037	Srilakshmi Puli
22	183030033	Venkateswarulu Kondiba
23	173030098	Karunakar Kothapelli
24	173030015	Ramaiah Challa
25	173030010	Basha P
26	173030068	U.Haritha

SCHALORS AWARDED

Sno	Regdno	Name	Supervisior	Titel of Thesis
1	173030044	P.Naga Deepthi	Dr.Raju Anitha	A Novel Heterogeneous Ensemble Classifier To Improve Prediction Accuracy For Early Diagnosis Of The Breast Cancer
2	173030063	Swapna Gouda	Dr.V.Srikanth	CLASSIFICATION ALGORITHM FOR DETECTION OF PHISHING WEBSITES TO IMPROVE WEB APPLICATION SECURITY
3	183030138	RAVINDR CHANGALA	Dr.Amarendra	FRAMEWORK FOR PREDICTION OF DIABETES USING MACHINE LEARNING TECHNIQUES
4	13303124	SRIDHAR REDDY VULAPULA	Dr.Malladi Srinivas	PRIVACY PRESERVATION OF SENSITIVE DATA IN HYBRID CLOUD
5	13303069	M VENKATESWARA RAO	Dr.Malladi Srinivas	MAXIMIZING WIRELESS SENSOR NETWORK PERFORMANCE WITH SECURITY ASPECTS FOR EFFICIENT ROUTING
6	13303084	MR.ARSHAD AHMAD KHAN MOHAMMAD	Dr.V.Srikanth	Efficient Routing Protocol For Mobile, Adhoc Network To Mitigate Mishehaving Nodes
7	14303006	ANUSHA MAROUTHU	Dr.V.Srikanth	An Effective Mac Protocol For Multi-Radio Channel Environment Of Cognitive Radio Wireless Mesh Network
8	11303013	GURUNATH THAVARU CHAVAN	Dr.V.Srikanth	AN EFFECTIVE ZONE BASED ROUTING PROTOCOLS FOR MOBILE ADHOC NETWORKS
9	15303144	DHANASHREE K. TORADMALLE	Dr.K.Amarendra	A SECURE & LIGHT WEIGHT SIGNCRYPTION TECHNIQUE USING ELLIPTIC CURVE-BASED DIGITAL SIGNATURE
10	15303120	SHARMA PINKI BHAGWANDAS	Dr.V.Srikanth	NFC-ENABLED MOBILE PAYMENT MODEL FOR FRAUD ANALYTICS

UG STUDENTS LIST

Sno	Regdno	NAME of the student
1	2100030839	JINKALA SAIKALYAN YADAV
2	2100031824	GUDLA VENKATA SAIKIRAN
3	2100032092	IMANDI HARI CHARAN

4	2100032515	SODISETTY SRAVYA SRI
5	2100030183	GRANDHI JO ATCHUTH SESHA SAI
6	2100030783	PRANAY CHOWDARY KOMMINENI
7	2100031095	SATHI S N V MANIKANTA BHASKAR REDDY
8	2100032154	POTTANGI LEELA PRASAD
9	2100030782	ALAPATI JASWANTH PHANI SAI KRISHNA
10	2100032099	PRUTHVI P DODDANNAVAR
11	2100032538	RAHUL SARKAR
12	2100039121	KATIKA RAKESH
13	2100030174	GOPALADASU HEMA VENKATA MALLIKARJUN
14	2100031223	CHITTIBOMMA PAVITHRA
15	2100031864	GANTA LOHITH SRI RAM KUMAR
16	2100032183	PULLAMSETTY NAGA VAMSI KRISHNA SAI
17	2100030391	PACHIPALA RAGHA ANVITH
18	2100030583	VEERAMACHANENI MANIKANTA CHOWDARY
19	2100030656	BOTLAGUNTA KUMAR CHOWDARY
20	2100031014	KODEBOYINA VARUN MARUTHI NAGA SAI
21	2000030636	MOHAMMAD ASHRAFF
22	2100031270	JAGATHA LOKESH SATYA
23	2100031489	SARAGADA SRIKAR REDDY
24	2100039061	KORRAKUTI DHANESH
25	2100030112	DAMARLA GOPALA KRISHNA
26	2100030560	UNDAVALLI HAVYA NISHMITHA
27	2100030999	MUDDALA VIJAYA RAGHAVA
28	2100039072	ITHA SAI HARSHITA
29	2100030395	PALLI JAGADEESH
30	2100031672	THOTA VEERA MADHU
31	2100032602	SHEIKHA NASSOR HAMAD
32	2100039093	MADDI KRISHNA KISHOR
33	2100030912	PUPPALA VAMSI KRISHNA
34	2100031573	JAYASREE MEDANDRAO
35	2100032314	SHAIK SHAROZ
36	2100039048	KANAMARLAPUDI PREM SAI
37	2100030596	VENNA PRASANNA LAKSHMI
38	2100031511	DATLA VEERA VENKATA SATYA SAI RAVI VARMA
39	2100032066	CHODAVARAPU PRAVEEN KUMAR
40	2100032126	ERODULA AARTHI

PG Students working

Sno	Regdno	Name of the Student
1	2201050004	LAKSHMI PRASANNA GUMMADI

2	2201050013	Jahnavi Oduri
3	2201050014	INUTU KAWINA

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Opportunities for Collaboration

We welcome collaboration with industry partners, academic institutions, and government agencies. If you are interested in working with us, please reach out to [Contact Person] at [Email Address].

Student Opportunities

Our group offers opportunities for undergraduate, graduate researchers to engage in cutting-edge IoT research.

Contact information

Dr.Raju Anitha

Associate Professor

Department of Computer Science &Engineering

anitharaju@kluniversity.in

+919848224369