

PUBLICATIONS

Dr. Manjula Sanjay Koti, HOD-MCA, published a Research Paper in the Journal of “Basic Science and Engineering” entitled “A Novel Hybridized Prediction Model for Detection of Chronic Renal Diseases using Multilayer Perceptron-Stochastic Gradient Descent based Boosted Classifiers”.



JOURNAL OF BASIC SCIENCE AND ENGINEERING

A novel hybridized prediction model for detection of chronic renal diseases using Multilayer Perceptron-Stochastic Gradient Descent based boosted classifiers

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DOI: <https://doi.org/10.1177/1930.203414573>

Abstract—Chronic Kidney Disease (CKD) is a critical health condition that affects millions worldwide, necessitating effective early diagnosis to mitigate its progression and associated mortality. The primary challenge in CKD prediction lies in handling complex, high-dimensional medical data and addressing issues of data imbalance, feature selection, and integration of various predictive models. Traditional single-model approaches often fall short in capturing the intricate patterns necessary for accurate diagnosis. The proposed research aims to develop and build a novel hybridized CKD prediction model leveraging an ensemble of advanced machine learning techniques to enhance diagnostic accuracy and reliability. The hybrid model integrates Multilayer Perceptron (MLP), Stochastic Gradient Descent (SGD), Adaptive Boosting (AdaBoost), Logistic Regression, and Random Forest, fortified by a series of robust methodologies and Classical Machine Models (CMM). Therefore, a hybridized model, combining the strengths of various algorithms, is proposed to achieve a more comprehensive and robust CKD prediction system. To improve model performance, feature selection methods such as ANOVA, Pearson correlation, and Crosser's V tests are applied. Incorporating deep stacked autoencoder networks allows for effective learning from multimodal data, enhancing the model's ability to process and interpret complex medical images and signals. Integrating CPM provides a critical context to the predictions, making the model's output more relevant and actionable in real-world medical settings. This comprehensive approach not only enhances diagnostic accuracy but also provides a framework that can be adapted to other complex medical prediction tasks.

Keywords— CKD, Prediction, Detection, Robustness, Anova, Correlation.

1. INTRODUCTION

Developing a novel hybridized CKD prediction model involves integrating multiple methodologies to address the accuracy, robustness, and interpretability of the detection system. The model starts with Logistic Regression (LR) as a baseline classifier, providing a straightforward and interpretable probabilistic framework. Feature selection methods such as ANOVA, Pearson correlation, and Crosser's V test are used to identify the most relevant features, ensuring that only significant features are included in the model. Support Vector Machine (SVM), alongside Naive Bayes, offer robust initial classification capabilities, each contributing unique strengths in handling different types of data. Random Forest (RF) further enhances the prediction accuracy by aggregating multiple decision trees. The Multilayer Perceptron (MLP) addresses class imbalance through advanced neural network techniques. Additionally, the integration of DL techniques, specifically Deep Stacked Autoencoder Networks, enables the model to learn from complex multimodal data, such as medical images and clinical reports, extracting high-level features that improve diagnostic precision. Boosted classifiers, like Gradient Boosting Machine (GBM) or AdaBoost, refine the model by combining several weak classifiers into a strong predictor, leveraging the robust features to enhance performance. Classical Prediction Models (CPM) assess the model's clinical relevance by incorporating various demographic and clinical factors, providing a comprehensive risk assessment for CKD progression. This hybrid approach combines the strengths of traditional statistical methods, machine learning algorithms, and deep learning techniques to deliver a robust, accurate, and interpretable CKD prediction system. Also, the hybridized

Dr. Manjula Sanjay Koti, HOD-MCA, published a Research Paper in the Journal of “Big Data” entitled “A secure hybrid deep learning framework for brain tumor detection and classification”.



Mathivanan et al. / Journal of Big Data (2023) 12:72
https://doi.org/10.1186/s40537-023-01137-6

Journal of Big Data

RESEARCH

Open Access

A secure hybrid deep learning framework for brain tumor detection and classification

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Abstract

Objective: The primary objective of this study is to propose a novel Brain-Tumor Detection Network (BTND) for MRI-based brain tumor diagnosis. The method aims to enhance image quality, ensure secure data transmission, and achieve highly accurate classification of brain tumors while addressing challenges related to manual interpretation and data security.

Dataset: The study utilizes three publicly available MRI datasets to evaluate the proposed method. The first dataset, D-1 (BR25HC), comprises brain MRI images specifically curated for tumor classification tasks. The second dataset, D-2 (BraTS), is the widely recognized Brain Tumor Segmentation Dataset, frequently used for brain tumor detection and segmentation. Lastly, D-3 (Kaggle Data Repository) is a collection of brain tumor MRI images obtained from the Kaggle platform, further diversifying the data sources for performance evaluation.

Method: The proposed methodology involves several key components to enhance the accuracy and security of brain tumor classification. During preprocessing, Contrast Limited Adaptive Histogram Equalization is employed to improve image quality by enhancing contrast, while data augmentation ensures the diversity and robustness of the dataset during training. The core of the approach is the BTND, specifically developed for precise classification of brain tumors. To address data security concerns, the study introduces SecureNet (SN), which prevents data modification and enables safe retrieval using specific identifiers for trusted information exchange. The performance of BTND is rigorously evaluated by comparing it against state-of-the-art deep learning models: ResNet101, DenseNet169, VGG19, MobileNetV2, InceptionV3, AlexNet, and ConvNet5.

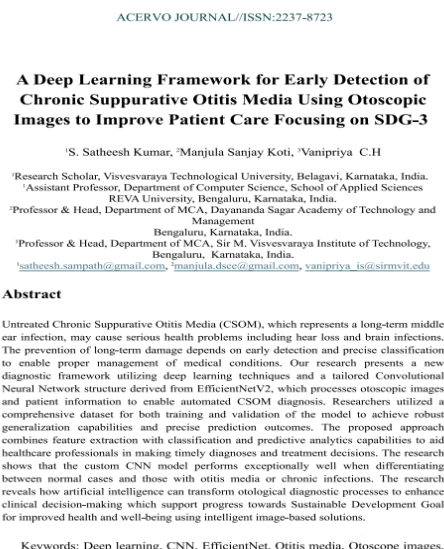
Results: The BTND demonstrated outstanding classification accuracies across the three datasets, achieving 95.68% on D-1 (BR25HC), 98.81% on D-2 (BraTS), and 95.38% on D-3 (Kaggle). These results surpass the performance of the compared deep learning models, underscoring the effectiveness of BTND for accurate and reliable brain tumor detection and classification.

Conclusion: The study demonstrates that the proposed BTND model ensures high accuracy in MRI-based brain tumor classification while incorporating SN to enhance data security and safe transmission. The remarkable performance across multiple

Dr. Chitra K, Assoc. Prof., Dept. of MCA,, has published an paper in the International Journal of Engineering System Modelling and Simulations on “Transforming electrical simulation and management with smart grid technologies” in Scopus-indexed Q3 Journal



Dr. Manjula Sanjay, Professor and Head, Dept. of MCA published an article “A Deep Learning Framework for Early Detection of Chronic Suppurative Otitis Media Using Otoscopic Images to Improve Patient Care Focusing on SDG-3”,in Acervo Journal(Q2), indexed in Scopus and WOS



PATENTS

Dr. Manjula Sanjay Koti, HOD-MCA has received a Design Patent grant for the “IOT ENABLED ROBOT FOR ULTRAVIOLET DISINFECTION”



Dr. Chitra K, Assoc. Prof., Dept. of MCA, has published a Patent on “Method for analyzing animal behavior patterns using Machine Learning Algorithms”



(12) PATENT APPLICATION PUBLICATION	(21) Application No. 20254101139 A
(19) INDIA	
(22) Date of filing of Application: 30/03/2025	(43) Publication Date: 11/04/2025
(54) Title of the invention: METHOD FOR ANALYZING ANIMAL BEHAVIOR PATTERNS USING MACHINE LEARNING ALGORITHMS	
(71) Name of Applicant : 1 Dr. T. Venugopala Swamy Address of Applicant :Associate Professor, Department of Zoology, SRNK Government Degree & PG College (Autonomous), Banavadi, Nizamabad, Pin: 503187, Telangana, India ----- 2 Dr. S J R K Padmalavalli V 3 Dr. Chitra K 4 Mrs. M. Ambika 5 Dr. K. Tamilasari 6 Dr. Avijit Bhosnick 7 Ananya S 8 Dr. T R Arunkumar 9 Mrs. P. Theenuchi 10 Dr. R. Banu Name of Applicant : NA Address of Applicant : NA (72) Name of Inventor : 1 Dr. T. Venugopala Swamy Address of Applicant :Associate Professor, Department of Zoology, SRNK Government Degree & PG College (Autonomous), Banavadi, Nizamabad, Pin: 503187, Telangana, India ----- 2 Dr. S J R K Padmalavalli V Address of Applicant :Associate Professor, R.V.R. & J.C. College of Engineering, Chowdaran, Guntur, Pin: 520119, Andhra Pradesh, India ----- 3 Dr. Chitra K Address of Applicant :Associate Professor, Department of MCA, Dayanada Sagar Academy of Technology and Management, Vidyanagar, Bangalore, Pin: 560082, Karnataka, India ----- 4 Mrs. M. Ambika Address of Applicant :Assistant Professor, J.J. College of Engineering and Technology, Trichy, Pin: 620026, Tamil Nadu, India ----- 5 Dr. K. Tamilasari Address of Applicant :Associate Professor, Department of Electronics and Communication Engineering, Excel Engineering College (Autonomous), NIS44, Salem main Road, Palakurapalem PO, Namakkal (D.T), Pin: 637303, Tamil Nadu, India ----- 6 Dr. Avijit Bhosnick Address of Applicant :Professor, Siliguri Institute of Technology, S.I.T. Campus, Siliguri, Hill Cart Road,	
(51) International classification	:A01C29/00(20060101), G06N20/00(20060101), G06N09/00(20060101)
(56) International Application No	NA
(57) International Publication No	NA
(61) Patent of Addition to	NA
(62) Divisional to Application	NA

INTERACTION WITH THE OUTSIDE WORLD

Dr. Manjula, HOD-MCA, has chaired the session for the online workshop on "Blockchain Bootcamp: Developing Smart Contracts" at AACST, on 28th February 2025.



Dr. Chitra K, Associate Professor, Dept. of MCA, has chaired the session for the online workshop on "BLOCKCHAIN BOOTCAMP: DEVELOPING SMART CONTRACTS" at AACST, on 28th February 2025



Dr. Manjula Sanjay Koti, Professor and Head, Dept. of MCA was the Session chair for the National conference on “Transforming management education in a digital world – innovation, technology, and inclusive leadership for global impact” on June 19, 2025



Dr.Chitra k, Associate Professor, Dept. of MCA, “Dept. of MCA was the Session chair for the National conference on “Transforming management education in a digital world – innovation, technology, and inclusive leadership for global impact” on June 19, 2025



BOOK

Dr. Aruna M, Assistant Professor, Dept. of MCA, published a Book Chapter entitled “Integrating Cognitive Science with Virtual Reality: Enhancing Human Perception and Learning”, in Fusion of Ideas & Trends.



Dr. V.SRINIVASAN,
Associate Professor,
Department of MCA,
Dayanand Sagar College of
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Dr. MARUNA
Assistant Professor,
Department of MCA,
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Dr.R.JAYANTHI,
Associate Professor,
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Introduction

The advancements in technology have opened new avenues for studying human cognition and behaviour. One of the most promising and impactful technologies in this context is Virtual Reality (VR). VR has evolved from an entertainment medium into a tool that can be used for research, education, and cognitive rehabilitation. Cognitive science, a multidisciplinary field that explores how humans perceive, learn, and remember, has greatly benefited from VR by providing researchers with new ways to simulate real-world environments, manipulate sensory inputs, and study cognitive functions in a controlled, immersive setting. The combination of VR with cognitive science has led to deeper insights into how human perception, learning, and memory work, as well as how these processes can be enhanced for educational and therapeutic purposes.

This chapter explores the integration of cognitive science and VR, focusing on how VR technologies are used to study and enhance human perception and learning. We will discuss the impact of VR on the study of perception, attention, and memory, and how it has revolutionized both research and applications in educational and therapeutic settings. Mathematical models and experimental design will be used to explain the cognitive mechanisms involved in VR-enhanced learning and perception [1].

1. Virtual Reality and Human Perception: Enhancing Sensory Processing

Human perception refers to the process by which we interpret sensory information from our environment and make sense of it. Cognitive science has long sought to understand how the brain processes sensory inputs, including vision, hearing, touch, and proprioception (the sense of body position) [2]. VR offers a unique platform to simulate and manipulate sensory inputs in ways that were previously difficult or impossible, providing valuable insights into the neural mechanisms underlying sensory processing and perception.

FACULTY DEVELOPMENT PROGRAMME(FDP)

Mrs. Ushasree R, Assistant Professor, Dept. of MCA, participated in the ATAL FDP on “Design Thinking for Healthcare Innovation” at Global Institute of Technology, from 17th - 22nd February 2025



Mrs. Pushpanjali, Assistant Professor, Dept. of MCA, participated in the FEP on “Front End Web Developer Certification” on 24th February 2025.



Dr. Enoch Arulprakash, Assistant Professor, Dept. of MCA, participated in the FEP on “JavaScript” & HTML5- The Language” on 15th February 2025.



Mrs. Pushpanjali, Assistant Professor, Dept. of MCA, participated in the FEP on “JavaScript” on 19th February 2025



Mrs. Priyadarshini S, Assistant Professor, Dept. of MCA, participated in the EBSCO Training on VTU-EBSCO & AMA, on 3rd March 2025



Mrs. Ushasree R, Assistant Professor, Dept. of MCA, in participated in the EBSCO Training on VTU-EBSCO & AMA, on 3rd March 2025



Mrs. Pushpanjali, Assistant Professor, Dept. of MCA, participated in the FEP on “Basics of python & Python Foundation Certification” on 28th February 2025.



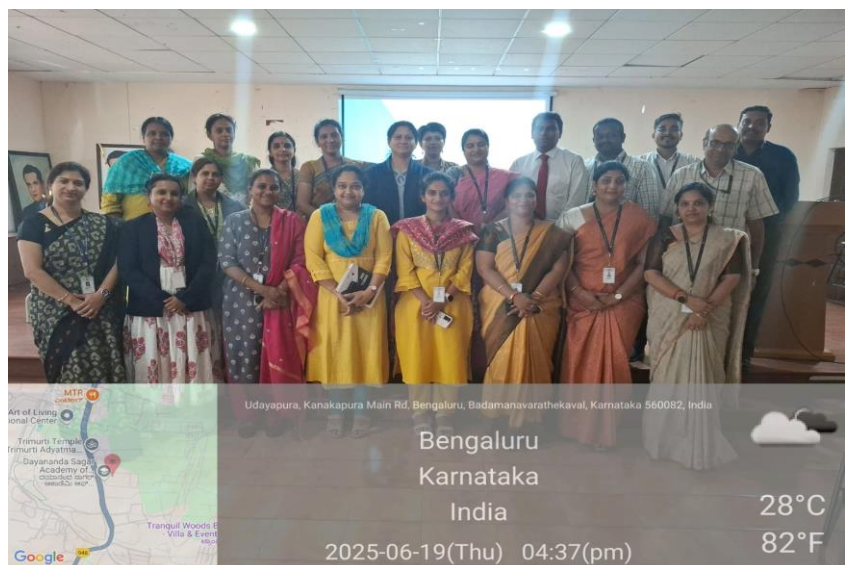
Dr. Enoch Arulprakash, Assistant Professor, Dept. of MCA, participated in the FEP on “CSS3” on 24th February 2025.



Dr. Chitra K, Associate Professor, Dept. of MCA, participated in the FDP on National Level Awareness Program on Institutional Development Plan (IDP) conducted by IAE, Hyderabad, on 6th March 2025.



Dr. M Aruna, Assistant Professor, Dept. of MCA, attended FDP on “Gamify to Amplify – Transforming Learning through play” on 19th June 2025.



Dr. M Aruna, Assistant Professor, Dept. of MCA, attended FDP on “Designing Scalable Machine Learning solutions with KNIME: From Data Preparation to Deployment” by Nanda Engineering College, Erode on 16th – 21st , June 2025.



Ms. Priyadarshini S R, Assistant Professor, Dept. of MCA, participated in the FDP on “AI Tools for Teaching” conducted by Brindavan college of Engineering, Bengaluru on June 28, 2025.



Mrs Ushashree R, Assistant Professor, Dept. of MCA, participated in the FDP on “AI Tools for Teaching” conducted by Brindavan college of Engineering, Bengaluru on June 28, 2025.



Ms. Pushpanjali S, Assistant Professor, Dept. of MCA, participated in the FDP on “AI Tools for Teaching” conducted by Brindavan college of Engineering, Bengaluru on June 28, 2025.



Ms. Pushpanjali S, Assistant Professor, Dept. of MCA, completed the FDP on “Programming Fundamentals using Python-part-1” from Infosys springboard ,on July 18, 2025.



Ms. Amsaveni M, Assistant Professor, Dept. of MCA, attended FDP on “AI Tools for Teaching” conducted by Brindavan college of Engineering, Bengaluru on June 28, 2025.



Ms. Amsaveni M, Assistant Professor, Dept. of MCA, has attended FDP on “AI Driven Cyber Security for Smart Devices” conducted by Annamacharya PG College of Computer Studies from June 16-20,2025.



Ms. Amsaveni M, Assistant Professor, Dept. of MCA, has participated in the FDP on “Advanced AI applications Research and Paper Writing” by Ponda Education Society Ravi.S Naik College of Arts and Science Farmgudi,Ponda,Goa from June 30 to July 4,2025.



Mr. Bharath Kumara J, Assistant Professor, Dept. of MCA, has participated in the FDP on “AI Tools for Teaching” by Brindavan college of Engineering, Bengaluru on June 28,2025.



Dr. Enoch Arulprakash, Assistant Professor, Dept. of MCA, has participated in the FDP on “AI Tools for Teaching” by Brindavan college of Engineering, Bengaluru on June 28,2025.



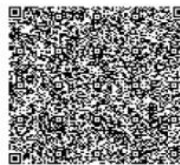
Ms. Priyadarshini S R, Assistant Professor, Dept. of MCA, completed the FDP on “Programming Fundamentals using Python-part-1” from Infosys springboard, on July 18, 2025.



||||||| COURSE COMPLETION CERTIFICATE |||||

The certificate is awarded to
priyadarshini siddaiah

for successfully completing the course
Programming Fundamentals using Python - Part 1
on July 18, 2025



Issued on: Friday, July 18, 2025
To verify, scan the QR code at <https://verify.amsinfoqan.com>



Congratulations! You make us proud!

Thirumala Arohi
Executive Vice President and Global Head
Education, Training & Assessment (ETA)
Infosys Limited

Ms. Pushpanjali S, Assistant Professor, Dept. of MCA, completed the FDP on “Programming Fundamentals using Python-part-2” from Infosys springboard, on July 25, 2025.



||||||| COURSE COMPLETION CERTIFICATE |||||

The certificate is awarded to
Pushpanjali S

for successfully completing the course
Programming Fundamentals using Python - Part 2
on July 25, 2025



Issued on: Friday, July 25, 2025
To verify, scan the QR code at <https://verify.amsinfoqan.com>



Congratulations! You make us proud!

Thirumala Arohi
Executive Vice President and Global Head
Education, Training & Assessment (ETA)
Infosys Limited

Ms. Amsaveni M, Assistant Professor, Dept. of MCA, has attended the webinar on “The Art of Research Writing” organized by The Tejas Scientific Researcher Foundation on 28 July,2025.



Ms. Aruna M, Assistant Professor, Dept. of MCA, completed the FDP on “ReactJS” from Infosys springboard, on July 31, 2025.



Mrs. Pushpanjali S, Assistant Professor, Dept. of MCA, has attended the webinar on “The Art of Research Writing” organized by The Tejas Scientific Researcher Foundation on 28 July,2025.

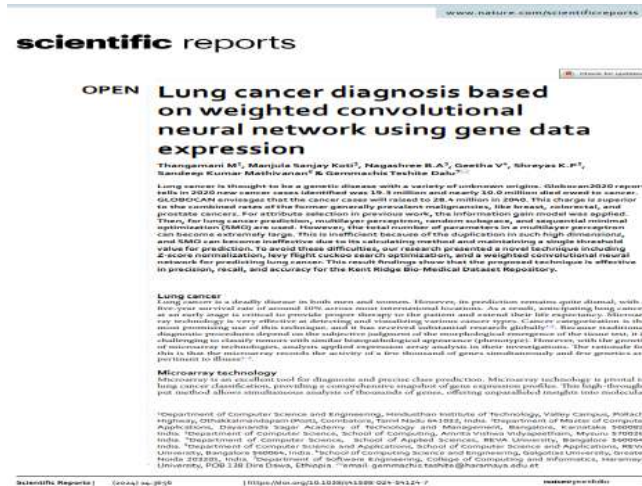


Mrs. Ushashree R, Assistant Professor, Dept. of MCA, participated in the Professional Development Program on “Future-Ready Skills in Data Science & AI: Bridging Academia with Industry Practice” conducted by Dept. of CSE-DS,MITS, on 21-25 July , 2025.



PUBLICATIONS

Dr. Manjula, HOD-MCA has published an article “Lung cancer diagnosis based on weighted convolutional neural network using gene data expression” in the Journal of “Scientific Reports” (Q1) indexed in WOS.



Dr. Manjula, HOD-MCA published an article “Multi-Criteria Decision-Making for Energy Management in Smart Homes Using Hybridized Neuro-Fuzzy Approach ” in the Journal of “Distributed Generation and Alternative Energy Journal” (Q3)



Multi-Criteria Decision-Making for Energy Management in Smart Homes Using Hybridized Neuro-Fuzzy Approach

U. V. Anbazhagu¹, Manjula Sanjay Koti², V. Muthukumaran^{3,*}, V. Geetha⁴ and Meram Munrathnam⁵

¹Department of Computing Technologies, School of Computing, Faculty of Engineering and Technology, SRM Institute of Science and Technology, SRM Nagar, Kattankulathur, Chennai, TN, India

²Department of MCA, Dayananda Sagar Academy of Technology and Management Bangalore, 560082, India

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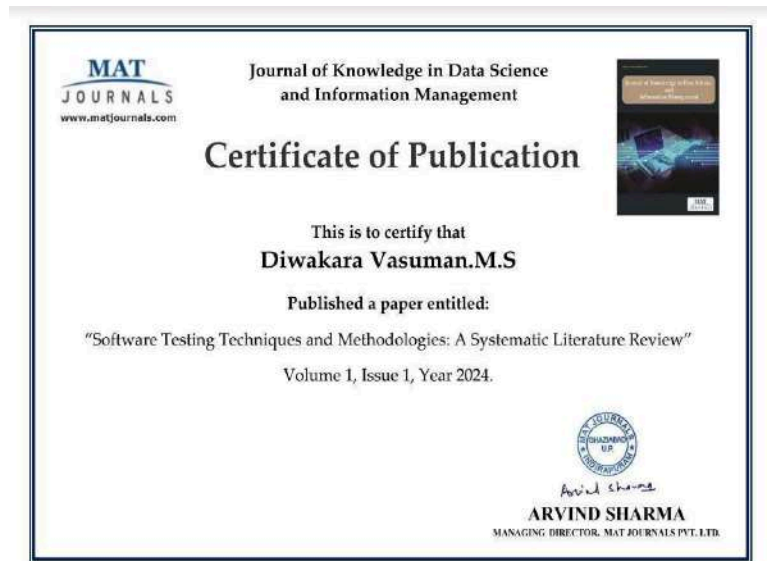
*Corresponding Author

Received 01 June 2023; Accepted 01 August 2023;
Publication 02 November 2023

Abstract

The necessity for smart energy oversight solutions has arisen in response to the rising popularity of energy-efficient home automation and other energy-saving technologies. Optimizing smart home energy use using multi-criteria decision-making (MCDM) is a proven methodology. However, the procedure

Diwakar Vaduman M S Asst. Prof., Dept of MCA published a paper in the Journal of “Software Testing Technologies and Methodologies: A Systematic Literature Review”



PATENTS

Dr. Manjula, HOD-MCA, has published a Patent on “IOT-ML Med Optimizer: A machine learning-based approach for optimizing medication dosage and delivery using Internet of things data” on 08-02-2024.



(12) PATENT APPLICATION PUBLICATION		(21) Application No.202441008553 A
(19) INDIA		
(22) Date of filing of Application :08/02/2024		(43) Publication Date : 08/03/2024
(54) Title of the invention : IOT-ML MEDOPTIMIZER: A MACHINE LEARNING-BASED APPROACH FOR OPTIMIZING MEDICATION DOSAGE AND DELIVERY USING INTERNET OF THINGS DATA		
(51) International classification	:A61B5/00, G06N20/00, G06N3/08, G16H10/00, G16H10/60, G16H20/00, G16H50/30	
(86) International Application No	:NA	
(87) International Filing Date	:NA	
(87) International Publication No	:NA	
(61) Patent of Addition to	:NA	
Application Number	:NA	
(62) Divisional to	:NA	
Application Number	:NA	
Filing Date	:NA	
(71)Name of Applicant :	1)Dr. Manjula Sanjay Kotti, Dayananda Sagar Academy of Technology & Management	
Address of Applicant :	Professor & Head, Department of MCA, Dayananda Sagar Academy Technology & Management, Bangalore, Karnataka, India. Bangalore -----	
Name of Applicant :	2)Dayananda Sagar Academy of Technology & Management	
Address of Applicant :	NA	
(72)Name of Inventor :	1)Dr. Manjula Sanjay Kotti, Dayananda Sagar Academy of Technology & Management	
Address of Applicant :	Professor & Head, Department of MCA, Dayananda Sagar Academy Technology & Management, Bangalore, Karnataka, India. Bangalore -----	
Name of Applicant :	2)Dayananda Sagar Academy of Technology & Management	
Address of Applicant :	Department of MCA, Dayananda Sagar Academy Technology & Management, Bangalore, Karnataka, India Bangalore -----	
(57) Abstract :		
IoT-ML MedOptimizer is a novel system that leverages machine learning algorithms and internet of things (IoT) data to optimize medication dosage and delivery for individuals. The system collects multimodal data from various sources, including wearables, sensors, medical devices, and electronic health records (EHRs), to generate personalized medication plans tailored to each patient's unique needs. The system uses advanced machine learning models that take into account patient characteristics, medical history, and real-time health status indicators to determine the most effective medication dosages and schedules. IoT-ML MedOptimizer continuously learns from new data inputs, adapting its recommendations based on changing patient conditions.		
No. of Pages : 8 No. of Claims : 2		

Dr. Chitra K Assoc. Prof., Dept of MCA has published a Patent on “Cloud Computing & Edge computing Paradigms for massive access in a Cell-Free massive MIMO-Based internet of Things(IOT) ” on 13th October, 2023.



 Office of the Controller General of Patents, Designs & Trade Marks Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Government of India http://ipindia.nic.in/index.htm		 INTELLECTUAL PROPERTY INDIA INDIAN PATENT, DESIGN & TRADE MARKS http://ipindia.nic.in/index.htm
Application Details		
APPLICATION NUMBER	202321056398	
APPLICATION TYPE	ORDINARY APPLICATION	
DATE OF FILING	04/09/2023	
APPLICANT NAME	1. Prof. Mukund Kulkarni 2. Dr.Chitra K 3. Mr. Mohamed Imtiaz N 4. Prof. Dr. Deepti Sharma 5. Dr.Belsam Jeba Ananth. M 6. Soujanya Ambati 7. Dr.K.Sasirekha 8. U Soma Naidu 9. Mr.B.Karthik 10. Dr. Harikumar Pallathadka	
TITLE OF INVENTION	CLOUD COMPUTING AND EDGE COMPUTING PARADIGMS FOR MASSIVE ACCESS IN A CELL-FREE MASSIVE MIMO-BASED INTERNET OF THINGS (IOT)	
FIELD OF INVENTION	COMMUNICATION	
E-MAIL (As Per Record)	senanipindia@gmail.com	

Dr. Chitra K ,Associate Professor , Department of MCA, has published a Patent on “Robust Encryption and Access Control Mechanisms for Ensuring Confidentiality in Cloud-Based Data Storage” on 08-03-2024.



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
DESIGN, PATENT, TRADE MARKS

(<http://ipindia.nic.in/index.htm>)

Application Details	
APPLICATION NUMBER	202441011307
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	15/02/2024
APPLICANT NAME	1. Dr. Chitra K 2. Dr. Parimal Kumar Giri 3. Mr. Konda Reddy Lingaladine 4. Naveen Sai Krishna Amuluru 5. Veeresh Naidu Gutta 6. Mr. Sai Charan Sunkara 7. Mr. Kotech Balakrishna Maruthiam 8. Mr. Protech Srivastava 9. Mr. Panduraju Pagidimala 10. Bhoolya Rajkumar 11. Dr. Harikumar Pallathadka
TITLE OF INVENTION	ROBUST ENCRYPTION AND ACCESS CONTROL MECHANISMS FOR ENSURING CONFIDENTIALITY IN CLOUD-BASED DATA STORAGE
FIELD OF INVENTION	COMPUTER SCIENCE

RESEARCH FUNDING

Dr. Manjula ,HOD-MCA received Research Funding Amount of Rs.1,00,000/- for the Research Topic “Exploring Gender Equity and Women Empowerment in Malaysia Corporate Sector”



INTI International University
Your Future. Our Vision.

3. Dr. Hish Shamshir Bani Hj Muhammad Haniffa, CAPF
4. Dr. Nasrudin Baniwa Mohd Yusoff, FIMA, OUM
5. Hajah Mahura Sato Dato' Haj Sahni, Telekom
6. Dr. Ramesh Mohan, ADPK
7. Dr. Manjula Sanjay Kati, OSAIM, India

This funding is provided for research project up to 18 months, starting 20 September 2023. You are requested to submit a progress report 6 months (by 20 March 2024) after the grant approval, and the final report by the 18th month (by 30 March 2024), summarizing the outcomes and accounting for the expenditure of the grant. Please read the Guidelines - Sending Grant Application for other details.

Any unutilized money will be reverted to INTI. All purchases made must be accompanied by proper documentation which include quotations, purchase order, delivery order and invoice/receipt. Please ensure that your project number, INTI-FRC-03-18-2023 is clearly indicated on all purchases requested. All purchase requests must be verified by the Secretariat for Research at the Research Management Centre (RMC) against the budget approved.

As the project proceeds, we acknowledge that it may in some cases be necessary to modify the original plan of expenditure. Any variation will need to be justified and approved.

We wish you every success with your project.

Thank You,

Yours sincerely,

Prof. Dr. Wong Ling Shing,
Pro Vice-Chancellor Research and Innovation

CC:

1. Ms. Wong Kion, Manager of Human Resources

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INTERACTION WITH THE OUTSIDE WORLD

Dr. Manjula, HOD- MCA, participated in the Industrial Event “AWS Skill Builder” organized by Amazon, on Sep 18,2024.



Dr. Manjula, HOD-MCA was the resource person for the National Level Workshop on “Quantum Computing Technologies : Exploring Interdisciplinary Frontiers ” organized by AACST on August 22, 2024.



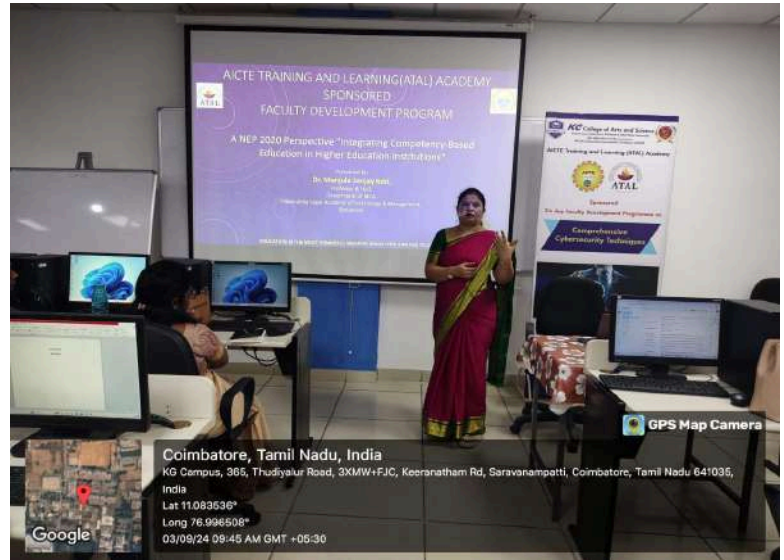
Dr. Manjula , HOD-MCA attended a Workshop on “AICTE approval process 2024-2025” at Jnana Jyothi Auditorium Bengaluru.



Dr. Manjula, HOD-MCA, delivered Technical Talk on “Digital Pedagogy : Incorporating ICT in Teaching and Evaluation” at Surana College, Bangalore on 8th July 2024.



Dr. Manjula, HOD-MCA, was the resource person for the ATAL-FDP on “Comprehensive Cyber Security Techniques” organized by KG College of Science, Coimbatore on Sep 3, 2024.

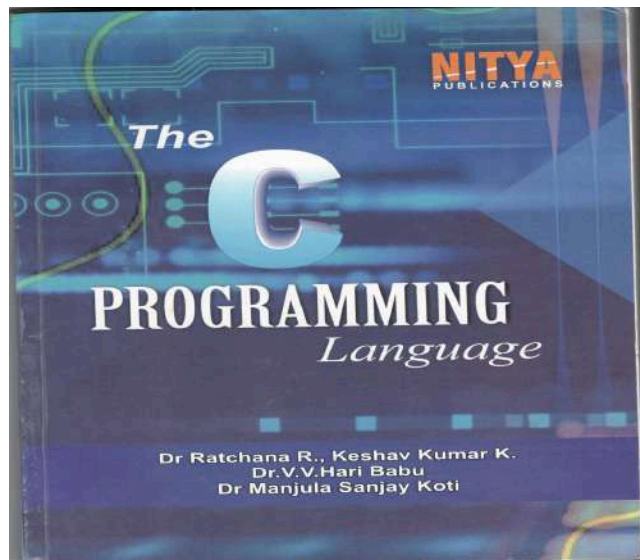


Dr. Chitra K, Assoc. Prof., Dept. of MCA, was the resource person for the National Level Workshop on “Quantum Computing Technologies : Exploring Interdisciplinary Frontiers ” organized by AACST on August 22, 2024.



BOOKS

Dr. Manjula, HOD-MCA published a book on “The C Programming Language”, Nitya publications



Dr. Chitra K Associate Professor, MCA published a Book on “BlockChain Technology”



CONFERENCE PUBLICATION

Ushashree R Assistant Professor, Department of MCA published a Paper on “IOT-Cloud enabled Health Care monitoring system: Implementation of Patient’s alert system through smart device prediction using Artificial Intelligence Technology ” indexed in IEEE Xplore



Faculty Development Programme(FDP)

Dr. Chitra K Assoc, Prof., Dept of MCA. Completed the MOOC on “Programming Fundamentals using Python –Part1 & Part-2” on October 10,2023.





Dr. Chitra K, Associate Professor, Department of MCA, is recognised as “Top Performing mentor” for NPTEL Online Certification course on Database Management System.



Dr. Chitra K , Associate Professor, Department of MCA attended Faculty Development Program on “Social Emotional Learning” from 16 To 17 January 2024.



Dr. Chitra K ,Associate Professor , Department of MCA, attended the International Faculty Development Program on “Advanced Research Methodology and AI” from 18 To 23-03-2024.



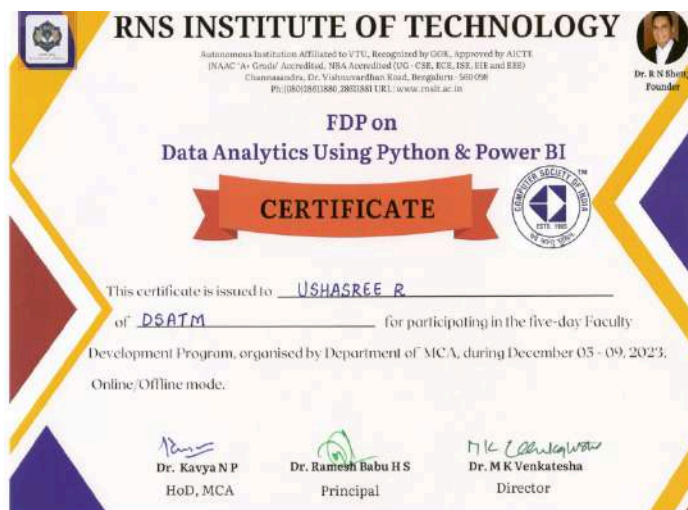
Dr. Chitra K, Assoc. Prof.,Dept.. of MCA, Attended FDP on “Deep Learning and Its Cutting Edge Application(DLCEA)” from 1st -6th April, 2024.



Dr. Chitra K, Associate Prof., Dept. of MCA, Completed Online Course on“Google Cybersecurity”, from Google.



Ushashree R Assistant Professor, Department of MCA attended FDP on “Data Analytics using Python & Power BI” held from December 05 To 09, 2023.



Ushashree R, Assistant Professor, Department of MCA, is recognised as “Top Performing mentor” for NPTEL Online Certification course on Database Management System.



Ushasree R, Asst. Prof., Dept. of MCA, participated in the FDP on “Artificial Intelligence Workshop” held on April 19-20,2024.



Mrs. Ushasree R, Asst. Prof., Dept. of MCA, participated in the FDP on “Unlocking Social Science Research: From Methodologies to Funding” held on May 9,2024.



Shreedhara N Hegde, Assistant Professor, Department of MCA, is recognised as “Top Performing mentor” for NPTEL Online Certification course on Database Management System.



Priyanka Mohan, Asst. Prof., Dept. of MCA, participated in the FDP on “The Cadet Citation” on April 13,2024.



Priyanka Mohan, Asst. Prof., Dept. of MCA, participated in the FDP on “Professional Ethics at Workplace” on April 13,2024.



Priyanka Mohan, Asst. Prof., Dept. of MCA, participated in the FDP on “National Security Database program” on April 13,2024.



Priyanka Mohan, Asst. Prof., Dept. of MCA, participated in the FIP on “Agile Scrum Practice”, from Infosys Springboard .



Priyanka Mohan, Assistant Professor, Department of MCA, is recognised as “Top Performing mentor” for NPTEL Online Certification course on Database Management System.



Chetankumari N, Asst. Prof., Dept. of MCA, participated in the FDP on “Data Visualization using Tableau” on April 1-5,2024.



Diwakar Vasuman M S, Assistant Professor, Department of MCA attended Faculty Development Program on “Social Emotional Learning” from 16 To 17 January 2024.



Priyadarshini S, Asst. Prof., Dept. of MCA, participated in the FIP on “Python for Data Science”, from Infosys Springboard .



Priyadarshini S, Asst. Prof., Dept. of MCA, participated in the FIP on “Natural Language Processing for developers”, from Infosys Springboard .



Faculty Achievements

Dr. Manjula, HOD-MCA received Research Funding of Rs.1,00,000/- for the Research Topic “Exploring Gender Equity and Women Empowerment in Malaysia Corporate Sector”, from INTI International University.



Dr. Manjula, HOD-MCA, delivered Keynote address on “Emerging Trends in Artificial Intelligence and Machine Learning during 6th International Conference on Innovation and Technopreneuship (ICIT 2023), INTI International University, Malaysia, Sep 21-22, 2023.



Dr. Manjula, HOD-MCA, delivered Technical Talk on “Artificial Intelligence and Machine Learning in Health care ” organized by Iloilo State University of Fisheries Science and Technology , (IFERP)-Philippines Society held on August 29-30,2023 at Manila, Philippines as Hybrid Conference



Dr.Manjula, HOD-MCA received certificate of Appreciation for publishing patent with DSATM Affiliation on world IPR Day, April 26, 2023.



Dr.Manjula, HOD-MCA, received certificate of appreciation for achieving 100% result for the course Data Mining & Business Intelligence the VTU Examination held during 2022-23



Dr.Manjula, HOD-MCA, received certificate of appreciation as Best Professional Performer for 2022-23.



Dr.Manjula Sanjay Koti, HOD-MCA, delivered Keynote Address on “A hybrid security framework using IOT for healthcare system” at KE college of Arts and Science, Coimbatore On April 13,2023.



Dr. Manjula Sanjay Koti, Prof & HOD-MCA has published a Patent on“Deep Learning Based Patient Monitoring System Using IOT for Healthcare”, on Mar 17, 2023

3/17/23, 11:54 AM

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Application Details	
APPLICATION NUMBER	202341013013
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	26/02/2023
APPLICANT NAME	1 . Dr. Manjula Sanjay Koti, Dayananda Sagar Academy of Technology and Management 2 . Mr.S.Satheesh Kumar, REVA University 3 . REVA University
TITLE OF INVENTION	Deep Learning-Based Patient Monitoring System Using IoT for Healthcare
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	manjula.dsce@gmail.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	
PUBLICATION DATE (U/S 11A)	17/03/2023

Application Status

<https://ipindiaservices.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus>

1/2

Dr. Chitra K, Associate Professor, MCA Dept.

Received Educator Training Certificate on **Alteryx Software**



Dr. Chitra K, Associate Professor, MCA Dept.

Received Certificate for Block chain technology from **CDAC**



Ushasree R completed a certification course on 'Cyber Security Essentials' with Silver Certificate.



Ushasree R completed a certification course on 'Cyber Security Essentials' with Gold Certificate.



Ushasree R has filed a patent on the topic “**IMAGE REGISTRATION TECHNIQUES FOR ACCURATE DIAGNOSIS OF BREAST CANCER BY UTILISING RADIOLOGY**” on 21/02/2023.

(12) PATENT APPLICATION PUBLICATION	(21) Application No.202341011803 A
(19) INDIA	
(22) Date of filing of Application :21/02/2023	(43) Publication Date : 17/03/2023
(54) Title of the invention : IMAGE REGISTRATION TECHNIQUES FOR ACCURATE DIAGNOSIS OF BREAST CANCER BY UTILISING RADIOLOGY	
(51) International classification : A61B 604/400, A61K 351200, C12Q 016886, G06T 073300, G16H 302000	(71) Name of Applicant : 1.Dr. Sumas Chandra Aranjai Address of Applicant : Professor, Dept of Radiology, MALLA REDDY INSTITUTE OF MEDICAL SCIENCES, Sy No. 138, Suraram Main Road, GHMC Quabhillapur, Hyderabad, Medchal-Malkajgiri Telangana, 500035 2.Dr. G. Hemalatha Address of Applicant : Associate Professor, Dept of Radiology, MALLA REDDY INSTITUTE OF MEDICAL SCIENCES, Sy No. 138, Suraram Main Road, GHMC Quabhillapur, Hyderabad, Medchal-Malkajgiri Telangana, 500035 3.Dr. P. Venkatesh Kumar Dasari Address of Applicant : Associate Professor, Department of Pharmaceutical Analysis, Padminder Institute of Pharmacy Education And Research, Warangal, Telangana 506166 4.Mrs. Meenakshi Jalwal Address of Applicant : Associate Professor, Department of Pharmaceutical Biotechnology, Mother Teresa Pharmacy College, Sathupally, Khammam, Telangana, 507303 5.Dr. Chandrasekhar Patil Address of Applicant : Assistant Professor, Department of Pharmacy, Guru Ghassidas Central University, Kani, 465009, Bilaspur, Chhattisgarh, India 6.Shirani I Address of Applicant : Assistant Professor / ECE, M.Kimaram College of Engineering, Kanur, Tamil Nadu 641101 9.Nidhi Saxena Address of Applicant : Associate professor, pharmacy, Nagar Institute of Research Technology & Science Pharmacy (NIRTSPT) Bhopal, MADHYA PRADESH, Pincode : 462023 10.Mahesh Ashok Address of Applicant : Adjunct Faculty, School of Business, Woxson University, Kankole, Sadaipet, Hyderabad, Telangana, 507435, India 11.Dr. M. Navene Kumar Address of Applicant : Assistant Administrator, CSE Department, Telangana University, Dighally, Nizamabad, Telangana, 505122 12.Prof. Ashish Chakravarty Address of Applicant : Associate professor / pharmaceutical sciences, Nagar Institute of research and technology pharmacy, NAGT, University, Bhopal, Madhya Pradesh, 462002
(86) International Application No. : PCT/IN2023/000000	(72) Name of Inventor : 1.Dr. Sumas Chandra Aranjai Address of Applicant : Professor, Dept of Radiology, MALLA REDDY INSTITUTE OF MEDICAL SCIENCES, Sy No. 138, Suraram Main Road, GHMC Quabhillapur, Hyderabad, Medchal-Malkajgiri Telangana, 500035 2.Dr. G. Hemalatha Address of Applicant : Associate Professor, Dept of Radiology, MALLA REDDY INSTITUTE OF MEDICAL SCIENCES, Sy No. 138, Suraram Main Road, GHMC Quabhillapur, Hyderabad, Medchal-Malkajgiri Telangana, 500035 3.Dr. P. Venkatesh Kumar Dasari Address of Applicant : Associate Professor, Department of Pharmaceutical Analysis, Padminder Institute of Pharmacy Education And Research, Warangal, Telangana 506166 4.Mrs. Meenakshi Jalwal Address of Applicant : Associate Professor, Department of Pharmaceutical Biotechnology, Mother Teresa Pharmacy College, Sathupally, Khammam, Telangana, 507303 5.Dr. Chandrasekhar Patil Address of Applicant : Assistant Professor, Department of Pharmacy, Guru Ghassidas Central University, Kani, 465009, Bilaspur, Chhattisgarh, India 6.Shirani I Address of Applicant : Assistant Professor / ECE, M.Kimaram College of Engineering, Kanur, Tamil Nadu 641101 9.Nidhi Saxena Address of Applicant : Associate professor, pharmacy, Nagar Institute of Research Technology & Science Pharmacy (NIRTSPT) Bhopal, MADHYA PRADESH, Pincode : 462023 10.Mahesh Ashok Address of Applicant : Adjunct Faculty, School of Business, Woxson University, Kankole, Sadaipet, Hyderabad, Telangana, 507435, India 11.Dr. M. Navene Kumar Address of Applicant : Assistant Administrator, CSE Department, Telangana University, Dighally, Nizamabad, Telangana, 505122 12.Prof. Ashish Chakravarty Address of Applicant : Associate professor / pharmaceutical sciences, Nagar Institute of research and technology pharmacy, NAGT, University, Bhopal, Madhya Pradesh, 462002
(87) International Publication No. : NA	
(81) Patent of Addition to Application Number : NA	
Filing Date : NA	
(82) Divided to Application Number : NA	
Filing Date : NA	
(57) Abstract IMAGE REGISTRATION TECHNIQUES FOR ACCURATE DIAGNOSIS OF BREAST CANCER BY UTILISING RADIOLOGY. Acquiring an external image-acquisition device to measure the shortest distance between the anatomical feature and at least a portion of the external image-acquisition device during the treatment sequence. The first registration device, the second registration device, and the plane registration device are single registration devices. The aligned first image includes the first set of annotations, replicating the first set of annotations to generate a second set of annotations for the aligned second image. Physically securing the breast and maintaining the breast in a repeatable position and a repeatable shape to a chest wall of the patient by securing the breast to a frame suspended from a table supporting the patient. A locator for positioning a patient's breast within a predetermined frame of reference having a predetermined axis extending away from a boundary plane of the predetermined frame of reference. Removing the breast specimen from the patient and in real time placing it on the specimen platform.	
No. of Pages : 16 No. of Claims : 1	

Ushasree R presented paper “**GAN, CNN and ELM Based Breast Cancer Detection**” in second international conference on Innovation in Technology (INOCON 2023) IEEE held at Sai Vidya Institute of Technology, March 2023.



Ushasree R Asst. Prof., Dept. of MCA, participated in the FDP on “Cloud Infrastructure(AWS)” Bengaluru, held on August 21-25,2023



Shreedhara N Hegde completed a certification course on “Programming Fundamentals using python – part1”.



Shreedhara N Hegde completed a certification course on “**Programming Fundamentals using python – part2**”.



Shreedhara N Hegde completed a certification course on **Basics of Python**



Shreedhara N Hegde completed a certification course on **Introduction to Unix**

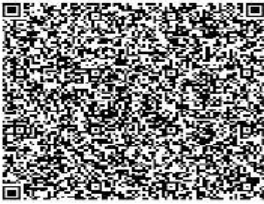


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The certificate is awarded to
Shreedhara N Hegde
for successfully completing the course
Introduction to Unix
on August 22, 2023

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Thirumala Arohi
Senior Vice President and Head
Education, Training and Assessment (ETA)
Infosys Limited

Shreedhara N Hegde completed one week Teachers Training on **Fundamentals of data science and analytics** organized by VTU.



AICTE – VTU Joint Teachers Training Programme
VISVESVARAYA TECHNOLOGICAL UNIVERSITY
Centre for Post-Graduation Studies, VIAT, Muddenahalli, Chikkaballapur (Dist.) -562101.
One Week Online Teachers Training Program
On
"Fundamentals of Data Science & Analytics"
05th – 09th June 2023



Certificate

This is to certify that Mr. /Mrs. /Dr. /Prof. **SHREEDHARA N HEGDE** of **DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT** has participated and successfully completed One Week AICTE-VTU Joint Teachers Training Programme on **"Fundamentals of Data Science & Analytics"** from **05th to 09th June 2023** Organized by Visvesvaraya Technological University, Centre for PG Studies, VIAT, Muddenahalli, Chikkaballapur (Dist.) - 562101.



Dr. Nirmala Hiremani
Programme Coordinator
Assistant Professor, Dept. of CSE,
VTU CPGS, Muddenahalli



Dr. N. Chikkanna
TU Coordinator, Professor & Chairman
Dept. of Aerospace Engineering
VTU CPGS, Muddenahalli



Dr. Rangaswamy B E
Registrar
Visvesvaraya Technological University,
Belagavi.

Shreedhara N Hegde Published a paper entitled “**SALINITY IN DRINKING WATER IS ANALYZED BY A PHOTONIC SENSOR AND MACHINE LEARNING**” in E Journal Paper Id: 21078 ISSN(O): 2395-4396 Volume-9 Issue-4 2023.



Shreedhara N Hegde Published a paper entitled **CO2 EMISSION PREDICTION USING MACHINE LEARNING** in E journal. Paper Id: 21079 ISSN(O): 2395-4396 Volume-9 Issue-4 2023.



Shreedhara N Hegde Published a paper entitled **VIDEO STEGANOGRAPHY** in E Journal Paper Id: 21178 ISSN(O): 2395-4396 Volume-9 Issue-4 2023.



Priyanka Mohan completed a certification course on **Programming Fundamentals using python – part1**.



Priyanka Mohan completed a certification course on **Programming Fundamentals using python – part2.**



Priyanka Mohan completed a certification course on **Basics of Python**

