

RANGACHARY KOMMANDURI

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Seeking a fulfilling career opportunity to share my knowledge and experience with students, engage in impactful research, and gain further insights and expertise in the education and teaching field, ultimately contributing to the growth and development of future generations.

EDUCATION

Ph.D. in Computer Science and Engineering <i>Ph.D. (CGPA: 8.20)</i>	Aug. 2019 – May 2024
Indian Institute of Information Technology	Sri City, India
Master of Technology <i>M.Tech. (91.80%)</i>	Sep. 2013 – Oct. 2015
Lakireddy Bali Reddy College of Engineering	Mylavaram, India
Bachelor of Technology <i>B.Tech. (71.28%)</i>	Oct. 2007 – April 2011
Sri Sarathi Institute Engineering of Technology	Nuzvid, India

WORK EXPERIENCE

Lakireddy Bali Reddy College of Engineering	Jan. 2016 – Aug. 2019
Assistant Professor, Computer Science and Engineering	Mylavaram, India
MIC College of Technology	May 2015 – Jan. 2016
Assistant Professor, Computer Science and Engineering	Kanchikacharla, India
Ventech	Aug. 2011 – Oct. 2012
Java Developer	Hyderabad, India

PROJECTS AND RESEARCH

Enhanced deep learning techniques for anomaly detection in video surveillance

Ph.D., 2019-2024

- The research focuses on developing novel approaches for feature extraction and representation in video data, investigating the use of deep learning models for anomaly detection, evaluating the performance of different algorithms on benchmark datasets, developing anomaly detection methods, and exploring domain adaptation techniques to improve generalization.

A Secure Intrusion-Detection System for MANETS

M.Tech., 2014-15

- The primary aim of this project is to introduce a new mechanism for detecting internal intruders within mobile ad-hoc networks through three modes: ACK (Acknowledgement), S-ACK (Secure ACK), and MRA (Misbehavior Report Authentication).

Smarter Space Management System

Industry, 2012

- Web application to intelligently manage warehouse space while sustaining and expanding the business.

RESEARCH INTERESTS

- Image Classification
- Object Detection and Localization
- Image Segmentation
- Video Analysis

PUBLICATIONS

- **Kommanduri Rangachary, and Mrinmoy Ghorai.** "DAST-Net: Dense visual attention augmented spatio-temporal network for unsupervised video anomaly detection." *Neurocomputing* (2024).
- **Kommanduri Rangachary, and Mrinmoy Ghorai.** "Anomaly detection in video surveillance: a supervised inception encoder approach." *Multimedia Tools and Applications* (2024).
- **Kommanduri Rangachary, and Mrinmoy Ghorai.** "Bi-READ: Bi-Residual AutoEncoder based feature enhancement for video anomaly detection." *Journal of Visual Communication and Image Representation* 95 (2023).
- **Kommanduri Rangachary, and Mrinmoy Ghorai.** "A supervised approach for efficient video anomaly detection using transfer learning." *International Conference on Pattern Recognition and Machine Intelligence*. Cham: Springer Nature Switzerland, 2023.
- **Kommaraju, Rangachary Kommanduri, S. Rama Lingeswararao, Sravanthi, and Srivalli.** "Iot based vehicle (car) theft detection." *Image Processing and Capsule Networks: ICIPCN 2020*. Springer International Publishing, 2021.
- **Rangachary, Midde Haripriya, Maragani Sai Sindhu, Yeddu Naga Malleswara Rao.** "Customized Colour Based Pattern Locking." *Journal of Applied Science and Computations*. Volume 6, Issue 4, APRIL 2019.
- **Rangachary K, Dr.S.Naganjaneyulu.** "Insider Attack Detection System (IADS) in MANETs." *International Journal of Advanced Research in Computer and Communication Engineering*. Vol. 4, Issue 6, June 2015. ISSN (Online) 2278-1021.
- **Kommanduri Rangachary, and Mrinmoy Ghorai.** "Ensemble Learning of Atrous Feature Fusion and Convolutional Swin Transformer for Enhanced Video Anomaly Detection." *IEEE Transactions on Neural Networks and Learning Systems*. (Submitted)

WORKSHOPS/CONFERENCES/FDP/ TRAINING PROGRAMS ORGANIZED

Organized CCNA training program for UG (B.Tech. CSE), PG (MCA) students | 1 month| 2017, 2018
LakiReddy Bali Reddy College of Engineering

Organized Cisco Networking Academy's Cybersecurity Learn-A-Thon programme | 15 days| 2018
LakiReddy Bali Reddy College of Engineering

WORKSHOPS/CONFERENCES/FDP/ TRAINING PROGRAMS ATTENDED

- Attended the International Research Workshop on Advances in Statistical Data Analysis and Modeling (WASDAM2022) from July 25-27, 2022, at Indian Institute of Information Technology, Sri City.
- Completed the Data Science and Visualization using Python program offered by the AICTE Training and Learning (ATAL) Academy from Dec 19-24, 2022, at IIIT, Sri City.

- Participated in the 5th Summer School on Artificial Intelligence in 2021 held at the International Institute of Information Technology, Hyderabad.
- Completed the Faculty Development Program On Data Science in June 2020 conducted by ExcelR.
- Engaged in a Ten Days Online Faculty Development Programme on Python Programming and Machine Learning Techniques from May 18-25, 2020, at the Department of Computer Science and Engineering, K.S.R College of Engineering, Tamilnadu.
- Participated in the 5-Day National Level Online Faculty Development Program on Artificial Intelligence from May 22-26, 2020, at BVRIT HYDERABAD College of Engineering for Women.
- Completed a 5-day online faculty development program on Introduction to Data Science from May 18-22, 2020, offered by Codegnan IT solutions.
- Completed a One-week Faculty Development Programme on Artificial Intelligence and Machine Learning from December 17-21, 2018, conducted by Electronics and ICT Academies.
- Participated in over five Global IPD (Instructor Professional Development) weeks organized by CISCO Networking Academy's Technical Field Engagement Team from 2016 to 2019.
- Completed Instructor Training for CCNA R&S - Module 3 and 4 from Feb 12-23, 2017, at NetACAD, CISCO.
- Completed Instructor Training for CCNA R&S - Module 1 and 2 from 29-Feb to 12-March, 2016, at NetACAD, CISCO.
- Engaged in over 10 one/two-day workshops, Faculty Development Programs (FDPs), and webinars related to professional development.
- Participated in conferences such as the Cisco Academy Annual Conference 2018 and the Two-day International Conference on Computational Intelligence and Data Engineering (ICCIDE-2017).

ONLINE CERTIFICATION COURSES

- NPTEL courses

Course Title	Duration	Grade
Programming in JAVA	Jan-April, 2019 (12 weeks)	Elite+GOLD
Internetwork Security	Jan-April, 2017 (12 weeks)	Elite
Introduction to R Software	Jul-Sep, 2017 (12 weeks)	Elite

- Cisco certified CCNA R&S Instructor for Lakireddy Bali Reddy College of Engineering Academy.

ACHIEVEMENTS

- Outstanding performance in Global IPD award for two times. | 2017, 2018
- Stood as the topper in SSC and M.Tech.

SUBJECTS TAUGHT

Krea University

Teaching Fellow

- Object Oriented Programming (OOP), July-Oct. 2023
- Introduction to Computational Thinking (ICT), Feb-May 2023

IIIT Sri City

Teaching Assistant

- Artificial Intelligence
- Computer Vision
- Digital image Processing
- Deep Learning

Lakireddy Bali Reddy College of Engineering

Course Instructor

- Computer Networks
- Digital Logic Design
- Introduction to programming
- Database Management Systems

COMMUNITY WORK

- Reviewer for "Journal of Electronic Imaging (JEI)"
- Reviewer for the journal "Recent Advances in Computer Science and Communications"

PROFESSIONAL MEMBERSHIPS

- Lifetime membership of the Indian Society for Technical Education (ISTE) (ID: LM 129160)
- Member of International Association of Engineers (IAENG) (ID: 214673)

SKILLS

- **Languages:** Telugu (Native), English and, Hindi
- **Programming:** Python (NumPy, SciPy, Matplotlib, Pandas), C, and, Java
- **Document Creation:** Microsoft Office Suite, LaTeX