Deepak Kumar

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CURRENT POSITION

I am a Ph.D. student at Machine Intelligence Lab, IIT Roorkee, India, supervised by **Prof. R. Balasubramanian**. My major research interest is Affective Computing, Human Behavior Analysis, Human-Computer Interaction, and a Group level of Emotion Recognition using Audio-Visual data.

EDUCATION

Ph.D., Computer Science and Engineering(Pursuing), CGPA: 8.588/10 Dec 2021 Onwards
Indian Institute of Technology, Roorkee, Uttarakhand, India.
Thesis Area: Group level of Emotion Recognition using Audio, Visual data using Machine Learning and Deep Learning
Supervisor: Prof. R. Balasubramanian

M.Tech, Software Engineering, CGPA: 8.25/10 June 2016
Motilal Nehru National Institute of Technology Allahabad, Prayagraj, Uttar Pradesh, India
Thesis Topic: Enhanced Hierarchial Particle Swarm Optimization using Time Varying Acceleration Coefficient
Supervisor: Prof. Rajesh Tripathi

B.Tech, Computer Science and Engineering, Per: 67.80 % June 2012
Uttar Pradesh Technical University Lucknow, Uttar Pradesh, India

WORK EXPERIENCE

Assistant Professor under TEQIP-III (NPIU-MHRD) (Oct 2018 - Dec 2021)
College of Technology, GB Pant University of Agriculture and Technology Pantnagar, Uttarakhand, India.

Assistant Professor (July 2016 - Sept 2018)
Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India.

Teaching Assistant (July 2014 - June 2016)
Motilal Nehru National Institute of Technology Allahabad, Prayagraj, Uttar Pradesh, India.
Assisted Prof. Rajesh Tripathi in Lab and Quiz sessions for Computer Graphics and Digital Computer Organization (CA-3103) courses.

RESEARCH INTERESTS

- Multimodality-based Affective Computing

- Machine Learning and Deep Learning

- Human-Computer Interaction (HCI)

- Multimodal Information Analysis

Publications

Conferences

[C-1] Speech-based Automatic prediction of Interview Traits, "7th International Conference on Computer Vision and Image Processing (CVIP 2022), 2022", Author: Deepak Kumar, Balasubramanian Raman

[C-2] Modified HPSO Using TVAC and Analysis Using CEC Benchmark Functions, "IEEE Conference on System Modeling and Advancement in Research Trends, 2019", Author: Deepak Kumar, Surbhi Madan, Avneeshwar Singh

[C-3] Privacy-Preserving Data Aggregation in Wireless Sensor, "IEEE Conference on System Modeling and Advancement in Research Trends, 2018", Author: Surbhi Madan, Deepak Kumar, Anamika Agnihotri

Projects

PhD Course Work Project

Emotion recognition using Speech with Deep Learning Techniques

In this project we were predicting the emotions(Happy, Sad, fear, angry, disgust) using speech with Deep Learning Techniques (1D CNN with batch normalization, RNN, LSTM). In this project we have used four available data sets (SAVEE, TESS, CREMA-D. Ravdess).

B.Tech Project

Developed College Website Using PHP and MySQL

I developed a college website using HTML, CSS, JavaScript, PHP, and MySQL for this project. The main objective was to develop a website that can be used in any college or school.

Awards & Scholarships

1. Received MHRD Scholarships during M.E. (2014-16) and Ph.D. (2022-26).

2. Qualified GATE Computer Science (Rank 2571, percentile 98.85) in 2013, (Rank 1523, percentile 99.02) in 2014, and (Rank 1459, percentile 98.74) in 2015.

3. Qualified CBSE UGC NET Computer Science in Dec 2015, Nov 2017, and July 2018.

Technical Skills

Programming Languages :	C/C++ (proficient), Python (proficient), Core Java (acquainted)
Development Tools :	TensorFlow, Pytorch, Keras, Anaconda, Spyder,Pandas
Database :	Microsoft SQL DB Server
Web Development :	HTML, CSS, PHP, Java Script
Others :	LaTeX, XAMPP, Android Development (prior experience).

Personal Details

Father's name :	Mr. Ajab Singh	Mother's Name :	Smt. Nirmesh Devi
Date of Birth :	Aug 09, 1991	Martial Status :	Married
Nationality :	Indian	Passport No. :	P0332791

Permanent Address: Vill.Bhawalpur Wasli, Post. Sarakara Kamal, Dist. Sambhal, Uttar Pradesh, India

References

Prof. R. BalaSubramanian
Professor, CSE Department, Indian Institute of Technology, Roorkee, India.

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Prof. Rajesh Tripathi
Associate Professor, CSE Department, MNNIT Allahabad, Prayagraj, India

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