# ARUN CHAUHAN

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## Research Interests

Deep Learning, Machine Learning, Non convex/Convex Optimization

## Employers

**IIIT Dharwad, Karnataka**
Assistant Professor, CSE (Nov 2017 – July 2021)
University website: http://iiitdwd.ac.in/

**Birla Institute of Technology and Science, Pilani**
Assistant Professor, Department of Computer Science and Information Systems
(February 2017 – November 2017)
University website: http://www.bits-pilani.ac.in/pilani/computerscience/ComputerScience

**IIIT Dharwad, Karnataka**
Assistant Professor (**On Contract**), CSE (Aug 2016 – Jan 2017)
University website: http://iiitdwd.ac.in/

**IBM Watson, Bangalore**
Internship (May 2014 – May 2015)
Mentor: Dr. Krishna Kummamuru

**Graphic Era University, Dehradun**
Assistant Professor-CSE (June 2010 – Dec 2012)
University website: http://www.geu.ac.in

**Graphic Era Institute of Technology, Dehradun**
Assistant Professor-CSE (Aug 2007 – May 2008)
University website: http://www.geu.ac.in

## Education

**Jan 2013 – Dec 2016:**
> **Indian Institute of Technology, Roorkee**
> PhD candidate, Computer Science and Engineering
> Adviser: Dr. Durga Toshniwal.
> Cumulative Performance Index: 8.5 (on a scale of 10).
> Topic: Prediction for Recommendation of Places of Visit Using Microblogs

**2008-2010:**
  **Indian Institute of Technology, Kharagpur**
  Master of Technology (M. Tech.) in School of Information Technology
  Cumulative Performance Index: 8.29 (on a scale of 10)
  Adviser: Dr. K. S. Rao
  Topic: Emotion recognition using Linear Prediction residual.
**2003-2006:**
  **Institute of Integral Technology, Lucknow**
  Affiliated to Uttar Pradesh Technical University
  Bachelor of Technology (B.Tech) in Information Technology
  Division: First

# Papers

## Conferences:

Shobhan Kumar and **Arun Chauhan**, "A FineTuned language model for Recommending cQAQAs for enriching Textbooks", in Pacific-Asia Conference on Knowledge Discovery and Data Mining (**PAKDD**), pp 423-435, 2021.

Jagadish D. N., **Arun Chauhan** and Lakshman Mahto, "Autonomous Vehicle Path Prediction using Conditional Variational Autoencoder Networks", in Pacific-Asia Conference on Knowledge Discovery and Data Mining (**PAKDD**), pp 129-139, 2021.

Jagadish D. N., **Arun Chauhan** and Lakshman Mahto, "Deep Learning Techniques for Autonomous Vehicle Path Prediction", in **AI4UM, AAAI** workshop on AI for Urban Mobility Workshop, 2021.

~**Arun Chauhan** et. al., "Predicting Mental Health of Scholars Using Contextual Word Embedding", in 8th IEEE International Conference on Computing for Sustainable Global Development (INDIACom), pp 923-930, 2021.

~**Arun Chauhan** et. al., "Identifying Distracted Students using Computer Vision and Statistical Methods", in 8th IEEE International Conference on Computing for Sustainable Global Development (INDIACom), pp 791-797, 2021.

Lakhman Mahto and **Arun Chauhan**, "An approximate gradient based hyper-parameter optimization in a neural network architecture", in **NeurIPS (NIPS)** 12th workshop on Optimization in Machine Learning (OPTML), 2020.

Jagadish D. N., Lakshman Mahto and **Arun Chauhan**, "Deep Learning and Density Based Clustering Methods for Road Traffic Prediction", in 5th IAPR International Conference on Computer Vision & Image Processing (**CVIP**), 2020.

**Arun Chauhan**, Shobhan, Lakshman and Jagadish, "Detection of Reckless Driving using Deep Learning ",19th IEEE International Conference on Machine Learning and Application (**ICMLA**), pp 853-858, 2020.

Shobhan Kumar and **Arun Chauhan**, "Recommending Question-Answers for enriching Textbooks", in proceeding of 8th International Conference on Big Data Analytics (**BDA**), pp. 308-328, Ashoka University, December 2020.

Shobhan Kumar and **Arun Chauhan**, "Making Kids Learning Joyful using Artistic Style Transferred YouTube VCs", in proceeding of 32nd IEEE, TENCON 2020-2020 IEEE Region 10 Conference (**TENCON**), pp. 1106-1111, Osaka, Japan, 2020.

Jagadish, Lakshman and **Arun Chauhan**, "Density Based Clustering Methods for Road Traffic Estimation", in proceeding of 32nd IEEE, TENCON 2020-2020 IEEE Region 10 Conference (**TENCON**), pp. 885-890, Osaka, Japan, 2020.

Shobhan Kumar and **Arun Chauhan**, "Enriching textbooks by Question-Answers using cQA", in proceeding of 31st IEEE, TENCON 2019-2019 IEEE Region 10 Conference (**TENCON**) pp. 707-714, 2019.

**Arun Chauhan**, Durga Toshniwal and Ravi Tejwani, "Predicting future place of visit using user's personality profile," in proceedings of IEEE International Conference on Computational Techniques in Information and Communication Technologies, New Delhi, , pp. 427-432, 2016.
Digital Object Identifier: 10.1109/ICCTICT.2016.7514619

**Arun Chauhan**, Shashidhar G. Koolagudi, Sabin Kafley and K. Sreenivasa Rao, "Emotion recognition using LP residual," Students' Technology Symposium (**TechSym**), 2010 IEEE , vol., no., pp.255-261, 3-4 April 2010.
Digital Object Identifier : 10.1109/TECHSYM.2010.5469162

Sabin Kafley, Anil Vuppala, **Arun Chauhan** and K. Sreenivasa Rao,"Continuous digit recognition in mobile environment," Students' Technology Symposium (**TechSym**), 2010 IEEE , vol., no., pp.217-222, 3-4 April 2010
Digital Object Identifier :  10.1109/TECHSYM.2010.5469151

## Journals:

**Arun Chauhan**, Krishna Kummamuru, and Durga Toshniwal, "Prediction of Places of Visit using Tweets", in Knowledge and Information Systems, Volume 50, Issue 1, pp 145–166 Springer, 2016. Digital Object Identifier: 10.1007/s10115-016-0936-x
(**SCI Impact Factor: 2.004**)

Vijay, Pinky, Joyeeta, **Arun Chauhan,** Basudeb, "An optimized feature selection technique based on incremental feature analysis for biometric gait data classification", Multimedia Tools and Applications , Volume 76, Issue 22, pp 24457-75, Springer 2016. Digital Object Identifier:10.1007/s11042-016-4110
(**SCI Imapct Factor:  1.530**)

**Arun Chauhan**, Ravi Tejwani, and Durga Toshniwal, "Twitter Can Predict Your Next Place of Visit", in International Journal of Distributed Sensor Networks, vol. 2016, Article ID 9274715, 10 pages, 2016. Digital Object Identifier:10.1155/2016/9274715.
(**SCI Impact Factor: 1.239**)

# Teaching

- Machine Learning , BITS Pilani, 2017
- Machine Learning, IIIT Dharwad, 2018
- Artificial Intelligence, IIIT Dharwad, 2018
- Deep Learning, IIIT Dharwad, 2019
- Machine Learning, IIIT Dharwad, 2020
- Deep Learning, IIIT Dharwad, 2020

# Administrative Responsibilities

- Head of the Department from Feb 2019 till date.
- Training and Placement officer from Jan 2018 to July 2018 at IIIT Dharwad
- Member of Technical committee from Jan 2018 till today at IIIT Dharwad
- Member of Training and Placement committee from July 2018 till today IIIT Dharwad
- Faculty advisor of $6^{th}$ semester 2018
- Faculty advisor of $6^{th}$ semester 2019

# Programming Languages

R, C/C++, Java, Matlab, Python.

# Other Relevant Information

- **GATE 2008**- All India Rank: 56
- Participated in **Faculty enablement program** at **Infosys, Chandigarh** from 20-24 June 2011.
- **MHRD Fellowship** for M.Tech, 2008-10.
- **MHRD Fellowship** for PhD, 2013-2016.
- **Best Paper Award** in International workshop on Machine Learning and Text Analytics, 2013.
- **Best Presentation award** at Xerox Research Center India (XCRI) open 2016.
- **Convener,** Short Term Training Program on Machine Learning(ML) from 27 - 31 Jan 2018 at KLE, Hubli, Karnataka..
- **Invited Speaker** at ML workshop, National Institute of Technical Teachers' Training and Research, Kolkatta from 19-23 Feb, 2018.
- **Invited Speaker** at ML workshop, Poojya Dooddappa Appa, College of Engineering, Gulbarga, Karnataka from 4-9 April, 2018.
- **Invited Speaker** at ML workshop, Indian Institute of Technology, Roorkee, Uttrakhand from 4-7 June, 2018.
- **Convener,** FDP on Machine Learning from 23 - 27 July 2018 at IIIT Dharwad, Karnataka.
- **Invited Speaker** at ML workshop, National Institute of Technology, Meghalaya from 28 Oct – 2 Nov, 2018.
- **Invited Speaker** at ML workshop, National Institute of Technical Teachers' Training and Research, Kolkatta from 04-08 Feb, 2019.
- **Invited Speaker** at ML workshop, VTU, Belgaum on 29 July 2019.
- **Invited Speaker** at ML workshop at BEC, Bagalkot on 4 Oct 2019.
- **Invited Speaker** at IIT Indore on 19 March 2021.

# References

| Dr. Chandresh K. Maurya CSE, Assistant Professor, IIT Indore.<br><br>ckm.jnu@gmail.com<br><br>+91-9451864314 | Dr. Lakshman Mahto Mathematics, IIIT Dharwad<br><br>lm.optlearning@gmail.com<br>+91-9882044168 | Dr. Udit Satija, Electrical Engineering, Assistant Professor, IIT Patna<br><br>udit@iitp.ac.in<br>+91-612-302 88156 |
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Date:  19 October 2021                                                                                            Arun Chauhan