

# GOPENDRA VIKRAM SINGH

## PhD. Scholar

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✉ AI-NLP-ML Lab, 5th FLOOR, BLOCK-3, IIT PATNA  
in gopendra singh

📍 Bihta, Bihar, INDIA

## EDUCATION

### Ph.D. in Computer Science and Engineering Indian Institute of Technology Patna

📅 January 2019 - thesis submitted on 15<sup>th</sup> of November

- CPI: 8.0
- Research Area: Natural Language Processing.
- Ph.D. Research Topic: Emoji Prediction, Knowledge, Sentiment, and Text Generation, Sarcasm Detection.

### National Institute of Technology Aug 2016 – June 2018

📅 India

- CGPA: 8.68
- M.Tech. Thesis Topic: Quantum Inspired Genetic Algorithm

## EXPERIENCE

### Ph.D. Scholar Indian Institute of Technology, Patna

📅 January 2019 – Ongoing 📍 Bihta, Bihar, India

- Working on the project *Ministry of Home Affairs project for Women and Child Safety*- Dec 2017 - Jan 2020.

### M.Tech. Student. National Institute of Technology

📅 Aug 2016 – June 2018 📍 India

- Worked as a researcher on thesis topic of *Quantum Inspired Genetic Algorithm for Relay Node Placement*.
- Performed TA duties in 3 subjects viz. Operating System, Machine Learning, Object Oriented Programming.

## ACADEMIC RESPONSIBILITIES

Teaching Assistant    Project Research Scholar  
Workshop Organizer    Teaching  
Mentoring Interns, Undergraduates and Postgraduates

## OTHER ACTIVITIES

Conducted tutorial on *Word Embedding and NLG with GPT-2* in GIAN Workshop on **Deep Learning Techniques for Conversational Artificial Intelligence**  
Indian Institute of Technology Patna

## ACHIEVEMENTS

🏆 GATE Scholarship by Govt. of India to pursue M.Tech.

## SKILLS

### Coding

Python    C    PHP

### Frameworks and Platforms

Pytorch    Scikitlearn  
Huggingface    Keras

## RESEARCH INTERESTS

Natural Language Processing  
Emotion and Sentiment Analysis  
Conversational AI    Machine Learning  
Deep Learning    Text Generation  
Information Extraction

## STRENGTHS

Hard-working    Collaborative  
Ready to learn    Quick learner

## LANGUAGES

English    ●●●●●  
Hindi    ●●●●●

## REFEREES

**Prof. Asif Ekbal**  
@ Indian Institute of Technology Patna  
✉ asif.ekbal@gmail.com; asif@iitp.ac.in  
https://www.asifekbal.com/

**Dr. Sriparna Saha**  
@ Indian Institute of Technology Patna  
✉ sriparna.saha@gmail.com

**Prof. Pushpak Bhattacharyys**  
@ Indian Institute of Technology Bombay

📅 13 – 24 Apr 2022

Conducted tutorial and demo on *Encode-Decoder models in deep learning* in **Faculty Development Program (FDP)**

[National Institute of Technology, Patna](#)

📅 16–18 Feb 2022

Conducted tutorial on *Mono-lingual and Multi-lingual word representation in Deep Learning* in CEP course on **Deep Learning for NLP**

[Indian Institute of Technology Patna](#)

📅 10 – 23 Jan 2020

Organizer of CEP course on **Deep Learning for NLP**

[Indian Institute of Technology Patna](#)

📅 10 – 23 Jan 2020

Program Committee member for *The 29th International Conference on Neural Information Processing (ICONIP 2022)*

[New Delhi India](#)

📅 22 – 26 Nov 2022

Program Committee member and reviewer for *The 17th International Conference on Natural Language Processing, Bihar, India*

[Indian Institute of Technology Patna](#)

📅 18–21 Dec 2022

Regular reviewer of journals like *Sādhanā*, *PLOS One*, *ACM TALLIP*, *Expert Systems With Applications*, and Conferences like *ICON*, *ICONIP*.

Secondary reviewer for core rank A\*/A conferences like *ACL* and *JCDL*

## RESEARCH PAPER WORKS

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### Published

1. **Singh GV**, Firdaus M, Chauhan DS, Ekbal A, Bhattacharyya P. Well, now we know! Unveiling Sarcasm: Initiating and Exploring Multimodal Conversations with Reasoning. In *The 38th Annual AAAI Conference on Artificial Intelligence (AAAI-A\* - Main Track)*.
2. **Singh GV**, Ghosh S., Atul Verma, Chetna, Ekbal A. Standardizing Distress Analysis: Emotion-Driven Distress Identification and Cause Extraction (DICE) in Multimodal Online Posts. Standardizing Distress Analysis: Emotion-Driven Distress Identification and Cause Extraction (DICE) in Multimodal Online Posts. In *Main Conference EMNLP 2023-A\**.
3. **Singh GV**, Ghosh S., Ekbal A. Promoting Gender Equality through Gender-biased Language Analysis in Social Media. *International Joint Conference on Artificial Intelligence 2023 (IJCAI-A\*)*.
4. **Singh GV**, Ghosh S., Neil D., Ekbal A. From Pink and Blue to a Rainbow Hue! Defying Gender Bias Through Gender Neutralizing Text Transformations. *International Joint Conference on Artificial Intelligence 2024 (IJCAI-A\*)*.

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Dr. Pratyay Kuila

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5. Ghosh S\*, **Singh GV\***, Arora J, Ekbal A. Benchmarking Cyber Harassment Dialogue Comprehension Through Emotion-Informed Manifestations-Determinants Demarcation. In The 38th Annual AAAI Conference on Artificial Intelligence (**AAAI-A\***- AI for Goods)(\***Equal Contribution and jointly the first authors**)
6. Mamta\*, **Singh GV\***, Deepak K, Ekbal A. Aspect-Based Multimodal Mining: Unveiling Sentiments, Complaints, and Beyond in User-Generated Content. In *Mumlimedia (MM'24-A\*)*(\***Equal Contribution and jointly the first authors**)
7. Priya P\*, **Singh GV\***, Firdaus M, Ekbal A. On the Way to Gentle AI Counselor: Politeness Cause Elicitation and Intensity Tagging in Code-mixed Hinglish Conversations for Social Good. In The 2024 Annual Conference of the North American Chapter of the Association for Computational Linguistics(**NAACL-24**) (\***Equal Contribution and jointly the first authors**)
8. **Singh GV**, Ghosh S, Ekbal A, Bhattacharyya P. DeCoDE: Detection of Cognitive Distortion and Emotion Cause Extraction in Clinical Conversations. In *Advances in Information Retrieval: 45th European Conference on Information Retrieval, **ECIR 2023**, Dublin, Ireland, April 2–6, 2023, Proceedings, Part II 2023 Mar 17* (pp. 156-171). Cham: Springer Nature Switzerland.
9. Mauajama Firdaus\*, **G. V. Singh\***, Asif Ekbal and Pushpak Bhattacharyya, Multi-step Prompting for Few-shot Emotion-Grounded Conversations in Proceedings of the 32nd ACM International Conference on Information and Knowledge Management (**CIKM'23**) rank A [**\*equal author and jointly the first authors**].
10. Ghosh S\*, **Singh GV\***, Ekbal A, Bhattacharyya P. COMMA-DEER: CCommon-sense aware Multimodal Multitask Approach for Detection of Emotion and Emotional Reasoning in Conversations.(**Coling 22**) [**\*equal author and jointly the first authors**]
11. Chauhan DS\*, **Singh GV\***, Majumder N, Zadeh A, Ekbal A, Bhattacharyya P, Morency LP, Poria S. M2H2: A Multimodal Multi-party Hindi Dataset For Humor Recognition in Conversations. In Proceedings of the 2021 International Conference on Multimodal Interaction 2021 Oct 18 (pp. 773-777). [**\*equal author and jointly the first authors**]
12. **Singh GV**, Firdaus M, Chauhan DS, Ekbal A, Bhattacharyya P. Zero-Shot Multitask Intent and Emotion Prediction from Multimodal Data: A Benchmark Study. In **Neurocomputing 2023** (H-Index: 177).
13. **Singh GV**, Ghosh S., Firdaus M, Ekbal A, Bhattacharyya P. "Predicting multi-label emojis, emotions, and sentiments in code-mixed texts using an emoji-fying sentiments framework". In **Scientific Reports 2024** (H-Index: 282).
14. **Singh GV**, Firdaus M, Mishra S, Ekbal A. Knowing What to Say: Towards knowledge grounded code-mixed response generation for open-domain conversations. *Knowledge-Based Systems(KBS)*. 2022 Aug 5;249:108900.
15. **Singh GV**, Firdaus M, Ekbal A, Bhattacharyya P. Emolnt-Trans: A Multimodal Transformer for Identifying Emotions and Intents in Social Conversations. *IEEE/ACM Transactions on Audio, Speech, and Language Processing (IEEE- TASL)*. 2022 Nov 23;31:290-300.
16. **Singh GV**, Firdaus M, Ekbal A, Bhattacharyya P. Affect-GCN: A Multimodal Graph Convolutional Network for Multi-Emotion with Intensity Recognition and Sentiment Analysis in Dialogues. *Multimedia and Tools*. 2022 Nov 5;249:108900.
17. **Singh GV**, Firdaus M, Ekbal A, Bhattacharyya P. Unity in Diversity: Multilabel Emoji Identification in Tweets. *IEEE Transactions on Computational Social Systems*. 2022 Apr 13.

18. **Singh GV**, Priya P, Firdaus M, Ekbal A, Bhattacharyya P. Emoln-Hindi: A Multi-label Emotion and Intensity Annotated Dataset in Hindi for Emotion Recognition in Dialogues. arXiv preprint arXiv:2205.13908. 2022 May 27. (Accepted in Lrec 22 paper id #1297)
  19. **Singh GV**, Chauhan DS, Firdaus M, Ekbal A, Bhattacharyya P. Are Emoji, Sentiment, and Emotion Friends? A Multi-task Learning for Emoji, Sentiment, and Emotion Analysis. (Accepted in Pacific Asia Conference 22 Paper id #55)
  20. **Singh GV**, Harizan S, Kuila P. Quantum Inspired Genetic Algorithm for Relay Node Placement in Cluster Based Wireless Sensor Networks. International Conference on Computational Intelligence, Communications, and Business Analytics 2018 Jul 27 (pp. 381-391). Springer, Singapore.
  21. Chauhan DS\*, **Singh GV\***, Arora A, Ekbal A, Bhattacharyya P. Mhadig: A Multilingual Humor-Aided Multiparty Dialogue Generation in Multimodal Conversational Setting. Knowledge-Based Systems. 2023 July 26:109924. [**\*equal author and jointly the first authors**]
  22. Chauhan DS\*, **Singh GV\***, Arora A, Ekbal A, Bhattacharyya P. An emoji-aware multitask framework for multimodal sarcasm detection. Knowledge-Based Systems. 2022 Sep 26:109924. [**\*equal author and jointly the first authors**]
  23. Chauhan DS, **Singh GV**, Arora A, Ekbal A, Bhattacharyya P. A Sentiment and Emotion aware Multimodal Multiparty Humor Recognition in Multilingual Conversational Setting.(Accepted in Coling 22)[**\*equal author and jointly the first authors**]
  24. Soumitra Ghosh, Tanisha Tiwari, Chetna Painkra, **Gopendra Vikram Singh** and Asif Ekbal . Leveraging Empathy, Distress, and Emotion for Accurate Personality Subtyping from Complex Human Textual Responses.(Accepted in ICON 23).
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