

# Kishalay Das

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📄 <https://kdmsit.github.io/>

## Research Interest

I am a Prime Minister Research Fellow at Indian Institute of Technology, Kharagpur and working as a part of CNeRG Group. I am broadly interested in Graph Representation Learning and Machine Learning. My current research is focused on representation learning over molecules and solid materials using Graph Neural Network (GNN).

## Education

- 2022 - **Ph.D. in Computer Science**, *Indian Institute of Technology(IIT), Kharagpur, India*, GPA: 9.5/10.
- Research Objective : Learning Representations over Crystal Material Graphs. under supervision of **Prof. Niloy Ganguly** and **Prof. Pawan Goyal**
- 2018 - 2020 **M.Tech. in Computer Science**, *Indian Institute of Science(IISc), Bangalore, India*, GPA: 8.8/10.
- Thesis: Graph Neural Network on Hypergraphs by Learning Line Graph Expansion under supervision of **Prof. M. Narasimha Murty**
- 2008 - 2012 **B.Tech. in Computer Science**, *West Bengal University of Technology, Kolkata, India*, GPA: 8.37/10.

## Research Experiences

- Jul,2020 - Dec, 2021 **Research Assistant**, IIT Kharagpur, CNeRG Group, under supervision of **Prof. Niloy Ganguly** and **Prof. Pawan Goyal**.
- Developing explainable property predictor for crystalline material using limited training data

## Work Experience

- May,2017 - Jul,2018 **Scientist/Engineer-SC**, *ISRO Telemetry Tracking and Command Network*, Indian Space Research Organisation (ISRO),Bangalore.
- Mar,2013 - Apr,2015 **System Engineer**, *Tata Consultancy Services (TCS)*, Kolkata.
- Jul,2012 - Feb,2013 **Associate Software Developer**, *Accenture Pvt. Ltd.*, Hyderabad.

## Publications

- Kishalay Das, Bidisha Samanta, Pawan Goyal, Seung-Cheol Lee, Satadeep Bhattacharjee, Niloy Ganguly, "**CrysGNN : Distilling pre-trained knowledge to enhance property prediction for crystalline materials**" accept in *AAAI 2023* (Acceptance Rate of 19.6%) [[Paper](#)]
- Kishalay Das, Bidisha Samanta, Pawan Goyal, Seung-Cheol Lee, Satadeep Bhattacharjee, Niloy Ganguly, "**CrysXPP: An Explainable Property Predictor for Crystalline Material**" accept in *NPJ Computational Materials, 2022* (Impact Factor: 13.2) [[Paper](#)] [[Code](#)]
- Sambaran Bandyopadhyay, Kishalay Das, M Narasimha Murty, "**Hypergraph Attention Isomorphism Network by Learning Line Graph Expansion**" *2020 IEEE-Big Data* [[Paper](#)] [[Code](#)]

## Relevant Courses

- Topics in Pattern Recognition, Machine Learning, Deep Learning, Natural Language Processing, AI and Ethics, Linear Algebra and Probability, Computational Method of Optimization, Data Analytic,

## Accomplishments

- Rewarded prestigious Prime Minister's Research Fellowship (PMRF) December cycle 2021
- Rewarded Best Grade (A+) on M.Tech Thesis in IISc, 2020.
- Rewarded Outstanding Grade on annual performance evaluation in ISRO, 2018.
- Secured **All India Rank 37** among 96878 candidates in GATE-2017 in Computer Science.
- Secured **All India Rank 38** among around 35000 candidates in ISRO Entrance Exam,2017.