

# CHAMPA BANERJEE

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## EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2023	M.SC(2YR)	Indian Institute of Technology (IIT) Kharagpur, West Bengal, India	9.43 / 10
2021	Bachelor of Science (Honours) in Physics	Bankura University, Bankura, West Bengal, India	9.56 / 10
2018	Diploma in Elementary Education	District Institute of Education and Training, Bankura, West Bengal, India	83.71%
2016	Higher Secondary Examination	West Bengal Council of Higher Secondary Education, West Bengal, India	91%
2014	Secondary Examination	West Bengal Board of Secondary Education, West Bengal, India	90.86%

## AWARDS AND ACHIEVEMENTS

- One of the top 5% students who cleared **West Bengal Primary Teachers Eligibility Test** exam.
- Secured an **AIR of 845** in **IIT JAM** out of 14298 students.

2017

2021

## INTERNSHIPS

### Possible Link Between Seismic Ambient Noise Power and River Water Level Changes.

June-July, 2022

*CSIR-National Geophysical Research Institute, Hyderabad, Telangana, India*

Supervisor: Dr. N. Purnachandra Rao, chief scientist

- Using STFT computed Power Spectral Density of the Seismic noise data recorded for 5 years near Alaknanda river in Chamoli, Uttarakhand, India.
- Computed Pearson's correlation coefficient between rainfall data and river water level.
- Cross-correlated between the average power of the spectrogram data and river water level.

## PROJECTS

### 1. Estimating Gas Hydrate Saturation in KG Basin, NGHP-01-10A well (Master's Thesis)

Aug'22-Present

Supervisor: Dr. Paresh Nath Singha Roy, IIT Kharagpur, India

Analyzed Resistivity log data using Archie's empirical equation based on an isotropic reservoir model.

### 2. A Very Fast Simulated Annealing Method for Inversion of Magnetic Anomaly over Semi-Infinite Vertical Rod

Type Structure.

[Jan-Mar 2022]

Supervisor: Dr. Chandrani Singh, Associate Professor, IIT Kharagpur, India

Estimated Model Parameters without compromising the resolution.

## TRAINING

### 1. Paradigm 18(Echos) Software Training

[April 2022]

*Seismic Imaging Centre, Banaras Hindu University*

Got acquainted with seismic data processing steps like geometry loading, noise attenuation, deconvolution, migration, etc.

### 2. Seismology- Theory, Practice and Applications

[January 17-28, 2022]

*CSIR-National Geophysical Research Institute*

- Basics of Seismology, seismic analysis with **Seisan** software, Phases in seismogram, location of earthquake, seismic hazard and microzonation.
- Secured **1st** position in the examination held by NGRI.

### 3. Field Training

[Dec 19-23, 2022]

*Well Logging Centre, ONGC Ahmedabad*

- Basic understanding of instrumentation of logging tools.
- Field visit to Side-wall coring and production logging sites.

### 4. Gravity and Magnetic Methods Field Training

[January 3-6, 2023]

*Shillong*

- Basic understanding of gravity and magnetic data instrumentation.
- Gravity and magnetic data correction, enhancement, visualization, and interpretation.

## SKILLS AND EXPERTISE

**Programming Languages:** C | Python (ObsPy, Matplotlib, Numpy) | Matlab

**Technical:** Google Earth Pro | RES2DINV | Paradigm-18 (Echos) | Seisan | OpendTect

**Non-Technical:** MS Office | Adobe Acrobat

## LANGUAGES

**Native:** Bengali

**Advanced:** Hindi and English

## POSITIONS OF RESPONSIBILITY

### 1. Secretary, SEG IIT Kharagpur Student Chapter [2022-23]

**Restarted** SEG Student Chapter with 10 members to encourage different activities.

## CERTIFICATIONS

### 1. Oil & Gas Industry Operations and Markets, Coursera

[August 2022]

*Duke University, North Carolina*

Completed the course "Oil and Gas Industry Operations and Markets", an online course and learned about the drilling sites, reservoir contents and especially economic price rise and fall in this industry.

### 2. Annual Exhibition [B.Sc.]

[Sept 26-27, 2019]

*Bankura Sammilani College, West Bengal, India*

Made the "Steady Hand Wire" game in Annual Exhibition.

## EXTRA CURRICULAR ACTIVITIES

### 1. Passed Prarambhik-2 in **Vocal Classical** and acquired **1st division with distinction** from **Bharat Kala Kendra**.

### 2. Participated as an **NSS volunteer** in social activities like cleaning and **spreading awareness** about cleanliness.

### 3. Performed **folk and modern dance** which has helped me to get over stage fright and learn co-ordination with other team members.

### 4. Played the role of "**Speaker**" in Mock Parliament and achieved the "**Best Speaker Award**" in block level.

## REFERENCES

1. **Dr. Paresh Nath Singha Roy** Professor, Department of Geology and Geophysics, IIT Kharagpur  
 E-mail: [pareshsr@gg.iitkgp.ac.in](mailto:pareshsr@gg.iitkgp.ac.in) Contact: +91-3222-281790

2. **Dr. Chandrani Singh** Associate Professor, Department of Geology and Geophysics, IIT Kharagpur  
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3. **Dr. Abhijit Mukherjee** Associate Professor, Department of Geology and Geophysics, IIT Kharagpur  
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