



## EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2020	M.TECH	IIT KHARAGPUR	8.66 / 10
2018	B.TECH	CENTRAL UNIVERSITY OF JHARKHAND	8.26 / 10
2013	HIGHER SECONDARY EXAMINATION (W.B.C.H.S.E)	RAMAKRISHNA MISSION VIDYAPITH, PURULIA	77.4%
2011	SECONDARY EXAMINATION (W.B.B.S.E)	RAMAKRISHNA MISSION VIDYAPITH, PURULIA	82.87%

## COURSEWORK INFORMATION

**Postgraduate:** Characterization Techniques of Materials | Fracture Mechanics and Analysis of Engineering Failures | Polymer Blends and Alloys | Processing and Fabrication of Polymers | Manufacture of Industrial Polymers | Science and Technology of Polymers, Ceramics and Semiconductors | Advance Ceramic Lab | Introduction to Nanotechnology

**Undergraduate:** Synthesis and Characterization Techniques of Nanomaterials | Materials Science | Crystallography and Crystal Structure | Nanocomposites | Diffraction Techniques

## SKILLS AND EXPERTISE

**Software Skills:** MS Office (Word, Excel, Powerpoint) **Language:** C **Tools:** Origin Pro, Mat Studio 4.4, X'Pert High Score

**Instrument Data Analysis:** OM, SEM, EDX, XRD, AFM, TGA, DSC, FTIR, UTM

## PROJECTS

**M.Tech Project | Coal & Coke Making Research Group (R&D), Tata Steel Limited, India | July 2019 - May 2020**

-Structure property relationship of carbon fiber reinforced ultrahigh temperature ceramic matrix Composites

- 1) Objective is to use carbon fiber as a reinforcing agent for the preparation of ceramic matrix composite (CMC).
- 2) Characterization techniques- OM, FESEM, EDX, XRD, Density measurement, Hardness test, Scratch test, Flexural Strength, TGA

**Summer Intern | Centre for Research in Nanoscience & Nanotechnology (CRNN) | June 2017 - July 2017**

- Synthesis and Characterization of Titanium dioxide Nanotubes ( $TiO_2$  NTs)

- 1) Fabrication of  $TiO_2$  NTs was done by electrochemical anodization method.
- 2) Characterization techniques- FESEM, EDX, UV-VIS Spectroscopy, XRD, FTIR.

**-Synthesis and Characterization of Manganese dioxide coated Multiwall Carbon Nanotubes ( $MnO_2$ /MWCNTs)**

- 1) Functionalization of raw MWCNTs was done to modify the inert nanotubes. Simple immersion on the functionalized MWCNTs followed by autoclaving and centrifugation to obtain  $MnO_2$  coated MWCNTs.
- 2) Characterization techniques- FESEM, EDX, UV-VIS spectroscopy, FTIR.

## TRAINING

**First Aid in Emergency | Feb, 2010**

Successfully completed training on First Aid in Emergency by Arambagh Health Guide in collaboration with Indian Red Cross Society.

## CERTIFICATIONS

**Pre Senior General Knowledge Test | 2009**

Certified successfully for having being placed among the top 10% students of the examination centre in Pre Senior General Knowledge Test organized by United Schools Organisation of India.

**Biennial Exhibition | 2009**

Certified successfully for participated in Biennial Exhibition organized by Ramakrishna Mission Vidyapith, Purulia.

## AWARDS AND ACHIEVEMENTS

**GATE | 2018**

Qualified in GATE in Engineering Science with AIR 215 and recipient of GATE scholarship by MHRD.

## EXTRA CURRICULAR ACTIVITIES

**Sports:** 1) Member of the Central University of Jharkhand Football Team and Champions of the Inter College Football tournament in Khelotsav 2018 organised by Central University of Jharkhand.

2) Secured 2nd place in the Inter House Football tournament 2017 organised by Central University of Jharkhand.

3) Commandant (Responsible for drills, march pasts and sports activities) of Ramakrishna Mission Vidyapith, Purulia.

**Music:** Playing Tabla