SIDDHARTHA TIWARI

9+ Years Work Experience combined with Academics, R&D and Industry in Metallurgical & Materials Engineering

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Bhubaneswar, Odisha

EXPERIENCE

Assistant Professor

Indira Gandhi Institute of Technology, Sarang

07/2017 - Ongoing | Dhenkanal, Odisha

An autonomous institute of **Govt. of Odisha**

- Department: **Metallurgical and Materials Engineering**
- **Teaching:** B. Tech and M. Tech
- **Courses:** Deformation Behavior of Materials, Failure Analysis of Engineering Materials, Characterization of Materials, Materials for Advanced Applications

Associate Manager

Jindal Stainless Limited, Central Quality

02/2017 - 07/2017 | Kalinga Nagar Industrial Complex, Jajpur, Odisha

Jindal Stainless is one of the **largest stainless steel conglomerates** in India and ranks among the top 10 stainless steel conglomerates in the world.

- **Assurance of the quality management system (QMS) as per ISO/IEC: 17025 in NABL accredited SMS laboratory**

Technical Consultant

ITW- Bangalore Integrated System Solutions (BISS)

04/2015 - 01/2017 | Peenya Industrial Area, Bangalore

BISS, unit of **Illinois Tool Works (ITW) USA**, is a leading manufacturer and supplier of servo-controlled test systems and competitive provider of mechanical testing services with **Nadcap** and **NABL** accredited facilities

- **Tensile Properties, Fracture Mechanics & Fatigue Life, Failure Analyses**

Industry Manager

Zwick Roell Testing Machine Pvt. Ltd

08/2013 - 11/2014 | German Center, DLF Phase III, Gurgaon

The Zwick Roell Group, a **German MNC**, is one of the **world's leading suppliers** of materials and component testing systems. Zwick supplies tailor-made solutions for the most demanding requirements – in both R&D and quality assurance, and in more than 20 industry sectors

- The role of **application consultant**
- **Materials Testing Machines, Fracture and fatigue tests, Contact and non contact type Extensometery, Universal Hardness Machines, Instrumented Impact Testing**

EDUCATION

MS, Metallurgical and Materials Engineering

Indian Institute of Technology Kharagpur

07/2010 - 07/2013 | Kharagpur, WB

- **CGPA:** 9.2 out of 10
- **Thesis:** Effect of Cu and Ni on the fracture toughness of as cast ductile iron
- **Publication**: K K Ray, **S Tiwari**, H Kumar, and A Bhaduri, "Development of Ductile Cast Iron for Spent Fuel Cask Applications Using Fracture Mechanics Principles", Trans Indian Inst Met (2016) 69(2):635–639
- **Award**: Best poster award in "The 3rd Asian Symposium on Materials and Processing (ASMP 2012)" jointly organised by **Japan Society of Mechanical Engineer** and **IIT Madras**

B. Tech, Materials Science and Metallurgical Engineering

University Institute of Engineering and Technology, CSJM University

08/2005 - 06/2009 | Kanpur

- **CPI:** 7.49 out of 10
- **Thesis:** Fabrication and Characterization of Al-Fe Metal Matrix Composite
- **Publication: Tiwari, S.**, Rajput, P. and Srivastava, S., "Densification Behaviour in the Fabrication of Al-Fe Metal Matrix Composite Using Powder Metallurgy Route", ISRN Metallurgy, Volume 2012, Article ID 195654, 8 pages, doi:10.5402/2012/195654.
- **Internship**: Strategic Materials Group Defence Materials & Stores Research & Development Establishment, DRDO, Kanpur
  Carbon Nanotube Synthesis

EXPERIENCE

Research Fellow

Indian Institute of Technology Kharagpur

06/2010 - 06/2013 Kharagpur

Department of Metallurgical and Materials Engineering

- **Melting & Casting**, Alloying, Ductile Cast Iron and Conventional & Non Conventional **Mechanical Testings & Analyses**

R&D PROJECTS

Study on Smelting Reduction of Mining Waste

11/2018 - Ongoing Bhubaneswar, Odisha

The proposed work aims to produce Ni and Cr bearing Pig Iron from the Chromite overburden of Sukinda Mines, Odisha. The cost of COB, is negligible compare to that of the conventional raw materials used in steel making. It takes step towards **waste to wealth** inline to **Zero Effect Zero Defect**.

- Role: **Project Investigator**
- Sponsor: **Science and Engineering Research Board**, Department of Science and Technology, New Delhi
- Collaboration: CSIR- Institute of Minerals and Materials Technology, Bhubaneswar
- Scheme: Teachers Associateship for Research Excellence (TARE)

Recovery of Metals, mainly Ni, from Bag House Dust and from Chromite Over Burden

02/2017 - 07/2017 Jajpur Odisha

To recover value added products from the steel plant and mining waste

- Role: **Coordinator**
- Preliminary investigations have exhibited promising results for pilot scale applications before industrial practices
- Signed MoU between Jindal Stainless Ltd. and CSIR- Institute of Minerals and Materials Technology, Bhubaneswar for further R&D

Development of Ductile Cast Iron for the Cask Application

06/2010 - 06/2013 IIT Kharagpur

To develop different grades of ductile cast iron (DCI) with varying amounts of alloying element, to examine structure-property relationship of developed ductile iron grade and to perform failure analyses of developed grades of cast iron using conventional and non conventional approaches of fracture mechanics

- Role: Junior & Senior **Research Fellow**
- Sponsor: **Indira Gandhi Center for Atomic Research, Kalpakkam**, **Department of Atomic Energy**, New Delhi

VOLUNTEERING

Joint Secretary

All India Students Conference on Science and Spiritual Quest

2012 - Ongoing

Started by **Dr. T D Singh** (His Holiness Bhakti Swaroop Damodar Swami), Founder Director of **Bhaktivedanta Institute** in 2006. The AISSQ series, with many **IITians** in organizing committee, have been hosted by prestigious institutes of India like Vigyan Bhawan New Delhi, IISc Bangalore, IIT (BHU) Varanasi, IIT Kharagpur, IIT Bhubaneswar etc. The series is honored by the gracious presence of former **President of India**, **Governors of States**, **Nobel Laureates,** internationally acclaimed scientists and eminent academicians and appreciated by the messages of **Prime Minister of India**, Ex **Home Minister of India**, **Vice President of India** and so on.