

Date of Birth

11/01/1979

Language known

Bengali, English, Hindi

Education

- **M.Tech (Design & Production)** – 2008 from NIT, Durgapur
- **B.E. (Mechanical)** – 2002 from B.E.College (D.U.), Shibpur, Howrah
- **AISSCE (Std. XII)** – 1997 from CBSE
- **ICSE (Std X)** – 1995 from ISCE

Professional experience**CMERI (A Constituent Establishment of CSIR) DURGAPUR, W.B.**

Post Held : *Scientist B*
Duration : (Sept 2004 – Sept 2007)
Post Held : *Scientist C*
Duration : (Sept 2007 – Sept 2010)
Post Held : *Senior Scientist*
Duration : (Sept 2010 – Till date)

Projects involved : 13

1. Design of Beam-Stoppers for Super-FRS in FAIR Project.
Project Cost: ₹210.5 Lakh
Duration: Sep. 2009-Feb. 2017
Role: Project Leader
Status: **Ongoing**
2. Design and development of force reflecting system. Network Project (12th Plan)
Project Cost: ₹187.0 Lakh
Duration: Sep. 2012-Mar. 2017
Role: Co-PI
Status: **Ongoing**
3. MEMS based immunosensor for the determination of antigen. Network Project (12th Plan)
Project Cost: ₹70.0 Lakh
Duration: Sep. 2012-Mar. 2017
Role: Co-PI
Status: **Ongoing**
4. μ - cantilever array for rare cell detection. Network Project (12th Plan)
Project Cost: ₹70.0 Lakh
Duration: July. 2013-Feb. 2017
Role: Co-PI
Status: **Ongoing**
5. Feasibility study of micro-scanning grating interferometer on a three dimensional translational stage μ - CMM.
Project Cost: ₹68.0 Lakh
Duration: Jan 2012-Jun 2015
Role: Co-PI
Status: **Completed**
6. Design, Simulation and Development of High “Q” Radio Frequency (RF) Cavities and Beam Line Systems- (in collaboration with VECC, Kolkata)
Project Cost: ₹87.0 Lakh
Duration: Apr. 2008-Dec. 2014
Role: Project Leader
Status: **Completed**
7. DSP, Durgapur Skelp Mill Mechanization.
Task-1: Design of a mechanized system for automated fixing of the hot skelp coil tip in the Coiler Pinch Rolls (CPR)
Task-2 : Design of a mechanized system for automated fixing of the last lap of the coil with the penultimate lap in Coil Drum
Project Cost: ₹20.424 Lakh
Duration: Sep 2009- Apr 2012
Role: Project Leader
Status: **Completed**
8. Generation, Analysis and Interactive Visualization in Virtual Reality of modulated

- quadrupled vane profile for linear accelerator (in collaboration with VECC, Kolkata)
 Project Cost: ₹24.2 Lakh
 Duration: Jan 2007-June 2008
 Role: Project Leader
 Status: **Completed**
9. Design of a Mechanical System for Inspection of Road Bridges.
 Project Cost: ₹6.5 Lakh
 Duration: Apr. 2006-Mar. 2007
 Role: Member
 Status: **Completed**
10. Development of LINAC-RB , A sub system of radioactive ion beam (RIB) accelerator system (VECC RIB Phase-III)
 Project Cost: ₹30.0 Lakh
 Duration: Jan 2004-Mar. 2007
 Role: Member
 Status: **Completed**
11. Application of Virtual Reality Tools in Integrated Product Development –AMT Network Project (10th Plan)
 Project Cost: ₹322.0 Lakh
 Duration: July 2003-Jun 2008
 Role: Member
 Status: **Completed**
12. Design & Development of Cricket Bowling Machine (2006) -**Completed**
 Project Cost: ₹6.0 Lakh
 Duration: July 2004-Sep 2006
 Role: Member
 Status: **Completed**
13. Design & Development of an Automatic parallel sides stitched mouth hemmed Jute Bag Stitching Machine. Project Cost: ₹20.0 Lakh. (2005)
 Project Cost: ₹20.0 Lakh
 Duration: July 2003-Jun 2005
 Role: Member
 Status: **Completed**

Technical Services: 02

- (i) Verification and reporting on the supplied design calculations of 18m Trolley Mounted Mobile Telescopic & Tilting Type Tower as per IS: 875, PT3, SRB Technocrats (P) Ltd, 77/5, Benaras Road, Howrah –711101.
 Project Cost: ₹2.5 Lakh
 Duration: July 2006-Sep 2006
 Status: **Completed**
- (ii) Calculations of FOS for using four man-riding cars in the existing haulage system, Churcha West Colliery, Churcha, Korea, Chattisgarh
 Project Cost: ₹0.2 Lakh
 Duration: May 2007-June 2007
 Status: **Completed**

DRDO (Ministry of Defence)

Post Held : *Scientist B*
Duration : (April 2004 – August 2004)
 Completed the post induction training at IAT, Pune

CMERI (A Constituent Establishment of CSIR) DURGAPUR, W.B.

Post Held : *Junior Research Fellow*
Duration : (October 2002 – March 2004)
Projects : Design & Development of an Automatic parallel sides stitched mouth hemmed Jute Bag Stitching Machine

CAD/CAE/Compiler Knowledge:

CATIA V5, MSC. ADAMS, LS-DYNA, HYPERMESH, AutoCAD, Ensight Gold, MATLAB, C

- **A Cricket Bowling Machine** (Patent no: 270304)
 Application: 1662/DEL/2005,
 Filed: 27.06.2005,
 Grant Date: 09.12.2015
 Published: 17.08.2007
 Pub. No.: 33/2007
 Inventor: Roy S S, Mahapatra A, Datta U, Mukherjee N P

Patent Filed

- **Skelp Positioning and Guidance System for Vertical Axis Coilers in Hot Strip Mills.**
Application: 888/DEL/2014
Filed: 28.03.2014
Pub no: 40/2015
Published: 02.10.2015
Application: 888/DEL/2014
Inventors: Mahapatra Abhijit, Chatterjee Avik, Majumder Goutam

No of Copyrights- **08**

- Drawings for improved cricket ball throwing machine (2005)
- Drawings for spring back wicket (2005)
- Design of Visual Inspection Unit including structural analysis and mechanical joints (2008)
- Report on Generation of Modulated Quadrupled Vane Profile and Thermo-mechanical analysis of 3.2 M RFQ LINAC (2008)
- Drawings for Development of a mechanized system for automatic fixing of the hot skelp coil tip in the Coiler Pinch Rolls (CPR) (2011)
- Structural frame of three dimensional translational stage of a micro CMM (2013)
- Pneumatic Muscle Test Set-up (Ref. no. 032CR2013 dated 30.09.2013)
- Engineering drawings of the exoskeleton of human index finger (2015)

Copyright Taken

- SCI Journal: 05
- Non-SCI Journal: 11
- International Conference: 07
- National Conference: 08
- Book/Book Chapter: 01
- Technical Report: 09

Publication

- Design of Mechanical Systems
- Multibody Dynamics of Mechanical Systems
- Mathematical Modeling and analysis
- Computational Mechanics
- MEMS

**Special Interest/
Subject**