

Work Address

Dream Institute of Technology

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DR. ABHISHEK BAGCHI

Objective

Upgrading the educational process and ensuring an interactive environment in which teaching, research, training, upgrading skills and practical applications are integrated so that the student's experience is enriched.

Experiences

August 2023 to till now working

Dream Institute of Technology

**Assistant Professor, Electrical Engineering
Department**

April 2022 To July 2023

JLD Engineering and Management College

**Associate Professor, Electrical Engineering
Department**

November 2019 to June 2021

S. N. Bose National Centre for Basic Sciences

Project Scientist C, Technical Research Centre

January 2015 to January 2019

S. N. Bose National Centre for Basic Sciences

CSIR direct Senior Research Fellow,

**Condensed Matter Physics & Material
Sciences Department**

January 2014 to December 2014

Institute of Engineering & Management

**Assistant Professor, Electrical Engineering
Department**

July 2013 to December 2013

Pailan College of Management & Technology

**Lecturer, Electrical & Electronics
Engineering Department**

July 2012 to February 2013

Tata Consultancy Services

Assistant Systems Engineer

Education

Ph. D. (Engineering)

Jadavpur University in 2021

(Award Date: 30 March 2021)

Thesis Title: DEVELOPMENT OF MICROACTUATOR SYSTEMS BASED ON THE PHOTOINDUCED MICROACTUATION EFFECT FOUND IN FERROMAGNETIC SHAPE MEMORY ALLOYS

M. Tech

**Intelligent Automation and Robotics from
Jadavpur University in 2012**

B. Tech

**Electrical Engineering from St. Thomas' College
of Engineering & Technology under West
Bengal University of Technology in 2008**

Software Proficiency

ANSYS, Solidworks, Digital Micrograph

Professional Qualifications & Achievements

- **Awarded CSIR direct Senior Research Fellowship for the year 2013-14.**
- **Sun Certified Programmer for the Java 2 Platform, Standard Edition 5.0.**

Job Profile

Assistant Professor, Electrical Engineering Department, Dream Institute of Technology.

Journal Publications

1. A. Bagchi, S. Sarkar, P. K. Mukhopadhyay: “Investigations on colour dependent photo induced microactuation effect of FSMA and proposing suitable mechanisms to control the effect”, *Indian J. Phys.*, 92 (2018) 883.
2. Abhishek Bagchi, Suman Sarkar, Sandip Bysakh, Susenjit Sarkar, P. K. Mukhopadhyay: “Possible mechanisms for degradation of Photo Induced Micro Actuation effect in a Ferromagnetic Shape Memory Alloy at high temperatures”, *J. Appl. Phys.*, 125 (2019) 144505.
3. Abhishek Bagchi, Suman Sarkar, Sandip Bysakh, Susenjit Sarkar, P. K. Mukhopadhyay: “Studies on the effect of temperature on the Photo-Induced Microactuation effect of a Co-based FSMA system”, *Shap. Mem. Superelasticity*, 6 (2020) 3.
4. Abhishek Bagchi, Suman Sarkar, Sandip Bysakh, Chandra Sekhar Tiwary, Md. Sarowar Hossain, Susenjit Sarkar, P. K. Mukhopadhyay: “Microstructural evolution and its outcome on the photo induced micro actuation effect and mechanical properties of copper doped Co-Ni-Al FSMA”, *J. Alloys Compd.*, 846 (2020) 156432.
5. Abhishek Bagchi, Amalendu Biswas, Gurdeep Singh, Susenjit Sarkar, P. K. Mukhopadhyay: “Finite Element Analysis of a FSMA microgripper for determination of force experienced by it due to Photo Induced Micro Actuation effect”, *J. Micro-Bio Robot.*, 17 (2021) 79.
6. Abhishek Bagchi, Vidhyadhar Mishra, Suman Sarkar, Sandip Bysakh, K. Das Gupta, T. Maity, Amalendu Biswas, Susenjit Sarkar, P.K. Mukhopadhyay, Suman Sarkar: “Probing the photo induced micro actuation properties of optimized Cu doped Co-34at%-Ni-35at%-Al-31at% ferromagnetic shape memory alloys”, *J. Alloys Compd.*, 968 (2023) 172262.

Conference Proceedings

1. Abhishek Bagchi, B. Rajini Kanth, P. K. Mukhopadhyay: “Investigations on Photo Induced Microactuation of FSMA”, Poster Presentation at ICFSMA'16 organized by Tohoku University held in Sendai, Japan.
2. Abhishek Bagchi, Susenjit Sarkar, P. K. Mukhopadhyay: “Photo Induced Control Mechanism of a proposed FSMA Microgripper System”, Oral Presentation at Bose Fest 2018 organized by S. N. Bose National Centre for Basic Sciences held in Kolkata, India.
3. Abhishek Bagchi, Suman Sarkar, Susenjit Sarkar, P. K. Mukhopadhyay: “Effect of temperature on the photo induced microactuation property of FSMA”, Oral Presentation at Condensed Matter Days – 2018 organized by University of Burdwan held in Burdwan, India.
4. Abhishek Bagchi, Suman Sarkar, Sandip Bysakh, Susenjit Sarkar, P. K. Mukhopadhyay: “MICROSTRUCTURAL EVOLUTION AND FERROMAGNETIC SHAPE MEMORY RESPONSE IN RAPIDLY SOLIDIFIED Co-Ni-Al ALLOYS”, Poster Presentation at NMD – ATM 2018 organized by Indian Institute of Metals and Tata Steel Ltd. (Under the aegis of Ministry of Steel, Government of India) held in Kolkata, India.

5. Abhishek Bagchi, Susenjit Sarkar, P. K. Mukhopadhyay: “A remotely operated FSMA relay system controlled by a low powered focused laser beam”, Oral Presentation at International Conference on Energy and Sustainable Development 2020 organized by Jadavpur University held in Kolkata, India.

Subject taken in UG Level

- Basic Electrical Engineering
- Circuit Theory
- Electromagnetic Field Theory
- Digital Electronics
- Analog Electronics
- Control System
- Sensors & Transducers
- Power Quality & FACTS

Subject taken in PG Level

- Advanced Control System