

**Prof. (Dr.) Pradip Kumar Sadhu**  
Professor  
Dept - Electrical Engineering  
Indian School of Mines  
Dhanbad – 826004  
Phone : 0326 – 2296744  
E-mail : [pradip\\_sadhu@yahoo.co.in](mailto:pradip_sadhu@yahoo.co.in)



### **Education**

**Ph.D. (Engg.) 2002**, Electrical Engineering, Jadavpur University.

Dissertation Title : Application of H.F. Inverter in Induction Heating.

**M.E.E. 1999**, Specialization – Power System, Electrical Engineering, Jadavpur University.

Dissertation Title : Class – A Commutated Inverter.

**B.E.E. (Hons) 1997**, Specialization – Electrical Measurements, Electrical Engineering, Jadavpur University.

### **Teaching**

#### **Experience**

<b>01/01/2010</b> <b>To</b> <b>Till Date</b>	Professor, Dept – Electrical Engineering, Indian School of Mines, Dhanbad – 826004, India.
<b>01/01/2006</b> <b>To</b> <b>31/12/2009</b>	Associate Professor, Dept – Electrical Engineering, Indian School of Mines, Dhanbad – 826004, India.
<b>17/12/2002</b> <b>To</b> <b>31/12/2005</b>	Assistant Professor, Dept – Electrical Engineering, Indian School of Mines, Dhanbad – 826004, India.
<b>30/06/1999</b> <b>To</b> <b>16/12/2002</b>	Lecturer, Dept – Electrical and Electronics Engineering, Birla Institute of Technology, Mesra, Ranchi – 835215, India.

### **Industrial**

#### **Experience**

<b>11 / 11 / 1991</b> <b>To</b> <b>27 / 06 / 1999</b>	Technical Assistant (Power System & Power Electronics Lab.), Electrical Engineering Dept, Jadavpur University, Kolkata – 700 032.
---	---

**15 / 01 / 1987** Service Engineer, Assembly & Servicing section, Nikasha Electronics  
**To**  
**10 / 11 / 1991**

**09 / 10 / 1986** Service Engineer (Trainee), Assembly & Servicing section, Nikasha Electronics  
**To**  
**14 / 01 / 1987**

**Patents**

04 (Four Nos.)

Title : A burglar proof electric lock cum alarm device.

No. : 156681 dated 04 / 05 / 1982

Title : A cooking apparatus using high frequency induction heating.

No. : 216361 dated 12 / 03 / 2008

Title : An improved high frequency inverter circuit arrangement.

Application No. : 69 / Cal / 2001 dated 05 / 02 / 2001

Title : An induction heating device for heating fluids in a non-metallic vessel or pipeline.

No. : 205322 dated 30 / 03 / 2007

**Paper Published**

- 1) International Journal : 11
- 2) National Journal : 20
- 3) International Conference : 23
- 4) National Conference : 22

**Special Award**

- 1) Awarded Certificate of Merit by Institution of Engineers (India), 8, Gokhale Road, Kolkata-700 020, India, in the year 2005 - 2006
- 2) Awarded Certificate of Merit by Institution of Engineers (India), 8, Gokhale Road, Kolkata-700 020, India, in the year 2001 - 2002

**Projects :**

**Principal Investigator of UGC supported Major Research Project (Amount Rs.7,16,000/-) entitled, "Simulation of high-frequency mirror inverter for energy efficient induction heated cooking oven using PSPICE" w.e.f. 01 / 04 / 2008 to 31 / 03 / 2011**

**Reviewer of International Journal**

- 1) IEEE Transactions on Power Electronics (IEEE-USA, 2001 L Street, NW. Suite 700, Washington, DC 20036-4910 USA)
- 2) Reviewer of the Relevant IEEE Conference sponsored by IACSIT, 9, Jurong Town Hall Road iHUB, Singapore 609 431.

**Membership of Professional Bodies**

- 1) Membership No. 80337150, IACSIT (International Association of Computer Science and Information Technology), Singapore-609 431.
- 2) Membership No. M – 140796-6, IE(I) [Institution of Engineers (India)], 8, Gokhale Road, Kolkata-700 020, India.
- 3) Membership No. LM – 29204, ISTE (Indian Society for technical Education), Shaheed Jeet Singh Marg, New Delhi - 110 016, India.
- 4) Membership No. LM – 24059, SCI (System Society of India), IT CENTRE, DEI (Deemed University), New Delhi – 110017, India.

**Participation in Academic Work of External Bodies**

- 1) External Examiner of Ph.D.(Engg.), Jadavpur University, Kolkata.
- 2) Member of BOCS (Board of Course Structure) of BIT Sindri, Sindri, Dhanbad.

**Courses Taught**

Basic Electrical Engineering, Electrical Measurement and Measuring Instruments – I & II, Electrical Machines, Utilization of Electrical Power, Industrial Drives & Control, Power System – I & II, Power System Analysis, Power System Apparatus, Analog Electronics, Digital Electronics, Power Electronics, Advanced Power Electronics

**Research Interest** - Power electronics applications, application of high frequency converter, energy efficient devices, energy efficient drives, computer aided power system analysis and condition monitoring.

**Theses Supervised**

**Ph. D. Thesis Supervised**

- A Study on H.F. Mirror Inverter with Choice of Pan Material for Induction Heated Domestic Cooking.
- Development of a P.C. Based Interlocking System and Some of Its Possible Applications.
- An Intelligent Maintenance Scheduling of Captive Power Plant for Quality Power.
- Radio-Frequency Mirror Inverter for Induction Cooker and The Corresponding Choice of Pan Material.
- Control Strategy of Induction Heating Appliances using High Frequency Mirror Inverter.

**Ph. D. Thesis  
Work in  
Progress**

- One Regular JRF of ISM
- One External Candidate

**M.E. Thesis  
Supervised**

- A High Frequency A.C. Generation Approach using B.J.T.
- Microprocessor Based Induction Heating for Home Appliance.
- New Generation Fluidic Heating in Non-Metallic Pipeline using Microprocessor Based Induction Heating.
- Microprocessor Based Interlocking System.
- Design of High Frequency Mirror Inverter for Induction Heating.
- Analysis of Power System Transients using Practical Model simulation.

**B.E. Project**

- Several projects are supervised on different areas.

**Academic  
Activities**

- Attended a short-term course on 'Frontiers of Measurement and Instrumentation' organized by Department of Electrical Engineering, I. I. T., Kharagpur, May 6 – 17, 2002.
- Attended the refresher course on 'Recent Advances in Power Engineering' organized by Department of Power Engineering, 2<sup>nd</sup>. Campus, Jadavpur University, Kolkata, May 26 to June 14, 2003.
- Attended a workshop on 'Role of IPR in entrepreneurship development' held at IIT-Kharagpur on 9<sup>th</sup> April, 2004