

PRADIP KUMAR SADHU

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Dept - Electrical Engineering
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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

16/10/2008 – Associate Professor, Dept – Electrical Engineering, Indian School of Mines University, Dhanbad – 826004, India.
present

17/12/2002 – Assistant Professor, Dept – Electrical Engineering, Indian School of Mines University, Dhanbad – 826004, India.
15/10/2008

30/06/1999 – Lecturer, Dept – Electrical and Electronics Engineering , Birla Institute of Technology, Mesra, Ranchi – 835215, India.
16/12/2002

Industrial Experience

10 years

- a) Technical Assistant (Power System & Power Electronics Lab.), Electrical Engineering Dept, Jadavpur University, Kolkata – 700 032.
- b) Service Engineer, Assembly & Servicing section, Nikasha Electronics

Patents

Title : A burgler 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

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

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.

M.E. Thesis

- 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, 2nd. 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 9th April, 2004

Publications

International Journal

1. R. Swaroop and **P. K. Sadhu**, “Fuzzy Logic Design for Packet Switched Network”- International Journal of Wireless Network and Communication, Volume 1, Numbers 1, (2009), pp. 79-92.
2. Mohanta Dasmanta Kumar, **Sadhu Pradip Kumar**, Chakrabarti R., “Safety and reliability optimisation of captive power plants using intelligent maintenance scheduling”- International Journal of Reliability and Safety, Volume 1, Numbers 1-2, 31 August 2006 , pp. 155-167(13)
3. Dasmanta Kumar Mohanta, **Pradip Kumar Sadhu**, R. Chakrabarti, “Deterministic and stochastic approach for safety and reliability optimization of captive power plant maintenance scheduling using GA/SA-based hybrid techniques: A comparison of results” – International Journal of Reliability Engineering and System Safety 92 (2007), Science Direct, Elsevier; 7Th February 2006, P.P. – 187-199.
4. Dasmanta Kumar Mohanta, **Pradip Kumar Sadhu**, Rupendranath Chakrabarti, “Fuzzy Markov Model for Determination of Fuzzy State Probabilities of Generating Units Including the Effect of Maintenance Scheduling” – IEEE Transactions on Power Systems ; Volume 20, Number 4, November 2005, P.P. – 2117-2124.
5. **Pradip Kumar Sadhu**, Narendranath Jana, Rupendranath Chakrabarti and Dilip Kumar Mitra “A Unique Induction Heated Cooking Appliances Range Using Hybrid Resonant Converter” – International Journal of Circuits, Systems and Computers, World Scientific, Volume 14, Number 3, June 2005, P.P. – 619-630.
6. Dasmanta Kumar Mohanta, **Pradip Kumar Sadhu**, Rupendranath Chakrabarti, “Optimization of safety and reliability of captive power plant maintenance scheduling using genetic algorithm and simulated annealing” – International Journal of Emerging Electric Power Systems, Berkeley Electronic Press (bepress); Vol 3 [2005], Issue 1, Article 1037.
7. Dasmanta Kumar Mohanta, **Pradip Kumar Sadhu**, R. Chakrabarti, “Fuzzy reliability evaluation of captive power plant maintenance scheduling incorporating uncertain forced outage rate and load representation” – International Journal of Electric Power System Research, Science Direct, Elsevier; Vol 72, Issue 1, 15Th November 2004, P.P. – 73-84.
8. **P. K. Sadhu**, S. K. Mukherjee, R.N. Chakrabarti, S. P. Chowdhury and B. M. Karan, “Microprocessor – based energy efficient sterilization for surgical instrument using a new generation inverter topology” – Journal of Energy, Heat & Mass Transfer, Asia and the Pacific; Vol 23, Number 1, March 2001, P.P. – 39-53.

National **Journal**

1. N. Pal, **Dr. P. K. Sadhu**, Dr. R. N. Chakrabarti, “Choice of Pan Material in Radio-frequency Mirror Inverter Induction Cooker” – Journal of Institution of Engineers (I); Vol 89, March 18, 2009, P.P. – 09-18.
2. **Dr. P. K. Sadhu**, Dr. S. Chattopadhyaya, Dr. T. K. Chatterjee and Dr. D. K. Mitra, “Online Monitoring and Actuation for Curing of Rubber Conveyor Belts” – Journal of Institution of Engineers (I), Mechanical Engineering Division;; Vol 89, October 17, 2008, P.P. – 31-35.
3. Dr. R. N. Chakrabarti, D. K. Mohanta, **Dr. P. K. Sadhu**, “Possibilistic Approach for Evaluation of Forced Outage Rates of Generating Units including the Effect of Maintenance Scheduling” – Journal of Institution of Engineers (I); Vol 87, March 2007, P.P. – 48-52.
4. **Dr. P. K. Sadhu**, Nitai Pal, Prof. (Dr.) Rupendranath Chakrabarti, and Prof. (Dr.) D. K. Mitra, “A dynamic model for the simulation of induction cooktop” – Industrial Engineering Journal of Indian Institution of Industrial Engineering, Navi Mumbai; Vol XXXV, No 6, June 2006, P.P. – 37-41.
5. D. K. Mohanta, **Dr. P. K. Sadhu**, Dr. R. N. Chakrabarti, “Captive Power Plant Maintenance Scheduling using Genetic Algorithm and Simulated Annealing based Hybrid Techniques for Safety and Reliability Optimization” – Journal of Institution of Engineers (I); Vol 86, March 2006, P.P. – 319-326.
6. N. Pal, **Dr. P. K. Sadhu**, Dr. R. N. Chakrabarti, “A Comparative Study of HF Mirror Inverter for Induction Cooker through Real-time and PSPICE Simulation” – Journal of Institution of Engineers (I); Vol 86, March 2006, P.P. – 268-274.
7. **Dr. P. K. Sadhu**, S. Chattopadhyaya, Prof. (Dr.) D. K. Mitra, “On-line Monitoring and Control System for Vulcanization of Truck Tyres” – Journal of Institution of Engineers (I), Mechanical Engineering Division; Vol 86, January 2006, P.P. – 175-177.
8. Nitai Pal, **Dr. P. K. Sadhu**, and Prof. (Dr.) Rupendranath Chakrabarti, “Electromagnetic and radio frequency interferences suppressor for industrial induction heating equipment” – Industrial Engineering Journal of Indian Institution of Industrial Engineering, Navi Mumbai; Vol XXXIV, No 11, November 2005, P.P. – 12-14.
9. Narendranath Jana, **Dr. P. K. Sadhu**, and Prof. (Dr.) Rupendranath Chakrabarti, “A novel high-frequency mirror inverter for industrial induction heating” – Industrial Engineering Journal of Indian Institution of Industrial Engineering, Navi Mumbai; Vol XXXIII, No 11, November 2004, P.P. – 25-29.
10. **Dr. P. K. Sadhu**, Swaroop R. and Prof. (Dr.) R. N. Chakrabarti, “A novel logic based automation concept on locker operation for banking industry” – Industrial Engineering Journal of Indian Institution of Industrial Engineering, Navi Mumbai; Vol XXXIII, No 5, May 2004, P.P. – 19-23.
11. **Dr. P. K. Sadhu**, Dr. R. N. Chakrabarti, Mrs. N. L. Nath, Naveen.K. Batchu, Smita Kumari, Kumari Rimjhim, “Analysis of a series resonant superimposed inverter applied to induction heating” – Journal of Institution of Engineers (I); Vol 84, March 2004, P.P. – 214-217.
12. **P. K. Sadhu**, R.N. Chakrabarti, S. P. Chowdhury and B. M. Karan, “A new generation energy efficient sterilization plant for surgical instruments” – The Indian Journal of Hospital Pharmacy, New Delhi; Vol XL, No 2, March-April 2003, P.P. – 60-64.
13. Swaroop R., **Prof. P. K. Sadhu**, Prof. (Dr.) S. K. Mukherjee, Prof. (Dr.) R.N. Chakrabarti and Prof. (Dr.) B. M. Karan, “The design of a new generation microprocessor-based interlocking device” – Industrial Engineering Journal of Indian Institution of Industrial Engineering, Navi Mumbai; Vol XXXII, No 8, Aug 2003, P.P. – 7-9.

14. **P. K. Sadhu**, S. K. Mukherjee, R.N. Chakrabarti, B. M. Karan and Swaroop R. “A new generation PC–based interlocking device” – Industrial Engineering Journal of Indian Institution of Industrial Engineering, Navi Mumbai; Vol XXXI, No 8, Aug 2002, P.P.– 7-10.
15. **P. K. Sadhu**, S. K. Mukherjee, R.N. Chakrabarti, S. P. Chowdhury and B. M. Karan, “High efficient contamination free clean heat production” – Journal of Engineering & Material Sciences, National Institute of Science Communication, New Delhi; Vol 9, June 2002, P.P. – 172-176.
16. **P. K. Sadhu**, R.N. Chakrabarti and S. P. Chowdhury, “A new generation fluid heating in non–metallic pipe–line using BJT and IGBT” – Journal of Institution of Engineers (I); Vol 82, March 2002, P.P. – 273-280. (Awarded Certificate of merit)
17. **P. K. Sadhu**, S. K. Mukherjee, R.N. Chakrabarti, S. P. Chowdhury and B. M. Karan, “A new generation microprocessor based radio – frequency operated induction heating for sterilization & boiler plant” – Journal of IEEMA, Mumbai; Vol XXII, No – 2, Feb 2002, P.P. – 36-48.
18. **P. K. Sadhu**, S. K. Mukherjee, R.N. Chakrabarti, S. P. Chowdhury and B. M. Karan, “A new generation microprocessor – based series resonant inverter for induction heated cooking appliances” – Industrial Engineering Journal of Indian Institution of Industrial Engineering, Navi Mumbai; Vol XXX, No 9, Sep 2001, P.P. – 10-15.

International Conference

1. Nitai Pal, **Pradip Kumar Sadhu**, Dilip Kumar Mitra and Rupendranath Chakrabarti, “Role of Electromagnetic and Radio Frequency Noise Suppressor for High Frequency Inverter operated Induction Heating Equipment” – published in the proceedings of the International Conference on “Modeling and Simulation, MS’07 India” held on 03-05th December, 2007, organized by Department of Applied Physics, University of Calcutta, India. P.P. – 440 – 443.
2. **Pradip Kumar Sadhu**, Nitai Pal, Rupendranath Chakrabarti and T. K. Chatterjee, “Performance Analysis of H.F. Mirror Inverter for Energy Efficient Induction Cooking Appliance Range” – published in the proceedings of the International Conference on “Modeling and Simulation, MS’07 India” held on 03-05th December, 2007, organized by Department of Applied Physics, University of Calcutta, India. P.P. – 444 – 448.
3. **P. K. Sadhu**, T. K. Chatterjee, D. K. Mitra, S. Chattopadhyaya and Upendra Prasad , “A Novel PC-Based Cure Monitoring Process for Batch Production of Rubber Hose, V-Belts & Conveyor Belts” – published in the proceedings of the International Conference on “Emerging Trends in Electrical Engineering” held on 12-14th January, 2007, organized by Department of Electrical Engineering, Jadavpur University, Kolkata – 700 032. P.P. – 7

4. **Pradip Kumar Sadhu**, Nitai Pal, Rupendranath Chakrabarti and Dilip Kumar Mitra, “Mathematical Modeling of Induction Cooker with PSPICE Simulation” – published in the proceedings of the International Conference on “Emerging Trends in Electrical Engineering” held on 12-14th January, 2007, organized by Department of Electrical Engineering, Jadavpur University, Kolkata – 700 032, P.P. - 19
5. **Pradip Kumar Sadhu**, Nitai Pal, Narendranath Jana, Rupendranath Chakrabarti and T. K. Chatterjee, “A Real Time Model Calculations for Skin Effect of Induction Cooktop (Cooker)” – published in the proceedings of the International Conference on “Emerging Trends in Electrical Engineering” held on 12-14th January, 2007, organized by Department of Electrical Engineering, Jadavpur University, Kolkata – 700 032, P.P. – 35
6. R. Chakrabarti, Dusmanta Kumar Mohanta and **Pradip Kumar Sadhu**, “A System Approach for Optimisation of Safety and Reliability of Captive Power Plant Maintenance Scheduling” – published in the proceedings of the International Conference on “Emerging Trends in Electrical Engineering” held on 12-14th January, 2007, organized by Department of Electrical Engineering, Jadavpur University, Kolkata – 700 032, P.P. - 2
7. **Dr. P. K. Sadhu**, Nitai Pal, Prof. (Dr.) R.N. Chakrabarti, Prof. (Dr.) D. K. Mitra, “A novel energy efficient heat transfer system for induction heated cooking – range using radio-frequency series resonant inverter” – published in the proceedings of Third International Conference on Energy Research & Development (ICERD-3) held on November 21-23, 2005, organized by Kuwait University & Ministry of Energy, Kuwait, Volume II, P.P. – 797-806.
8. Narendranath Jana, Nitai Pal, **Pradip Kumar Sadhu** and Rupendranath Chakrabarti, “Analysis of DC-link half-bridge resonant inverter used for induction cookers” – published in the proceedings of International Conference “PEITSICON-2005” held on 28-29 th January 2005, organized by IEE (UK), Calcutta Branch and Jadavpur University, Kolkata-32; P.P. – 258-261.
9. D. K. Mohanta, S. Khaitan, Dr. R. Chakrabarti, and **Dr. P. K. Sadhu** “Emerging trends in fuzzy based power system reliability analysis”–published in the proceedings of International Conference “ICET-2003” held on 19-21 th Dec 2003, organized by Kalinga Institute of Technology, Bhubaneswar, Orissa ; P.P. –19
10. D. K. Mohanta, M. J. Reddy, Dr. B. M. Karan, **Dr. P. K. Sadhu**, and Prof (Dr.) R. Chakrabarti “Power quality disturbance analysis using Wavelet transform” – published in the proceedings of International Conference “ICET-2003” held on 19-21 th Dec 2003, organized by Kalinga Institute of Technology, Bhubaneswar, Orissa ; P.P. – 30

11. **P. K. Sadhu**, R.N. Chakrabarti, S. P. Chowdhury and B. M. Karan “Clean heat manufacturing by microprocessor control superimposed radio-frequency inverter” – published in the proceedings of International Conference on manufacturing “ICM-2002” held on 9-11th Aug 2002, organized by Department of Industrial and Production Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000; Volume 3
12. N. Sharma, A. K. Singh, M. Ganguli, S. K. Mukherjee, B. N. Das, B. M. Karan, **P. K. Sadhu** and R. N. Chakrabarti “Manufacturing of prosthetic limb using myoelectric or EMG signals” – published in the proceedings of International Conference on manufacturing “ICM-2002” held on 9-11 th Aug 2002, organized by Department of Industrial and Production Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000; Volume 1, P.P. – 654-664
13. R. Swaroop, **P. K. Sadhu**, S. K. Mukherjee, R. Chakrabarti, and B. M. Karan “A new generation microprocessor-based interlocking device” – published in the proceedings of International Conference “CIIC-2001” held on 13-15 th Dec 2001, organized by Department of Applied Physics, University of Calcutta, Kolkata; P.P. – 453-458
14. **P. K. Sadhu**, S. K. Mukherjee, R.N. Chakrabarti, S. P. Chowdhury and B. M. Karan, “The design of microprocessor based series resonant inverter for a new generation contamination free induction heated medicinal plant” – published in the proceedings of International Conference “CIIC-2001” held on 13-15 th Dec 2001, organized by Department of Applied Physics, University of Calcutta, Kolkata; P.P. – 285-292
15. **P. K. Sadhu**, Prof. (Dr.) S. K. Mukherjee, Prof. (Dr.) R.N. Chakrabarti, (Dr.) S. P. Chowdhury and (Dr.) B. M. Karan, “Microprocessor-based energy efficient dry and wet sterilization for surgical instruments” – published in the proceedings of International Conference “ICERD-2” held on 5-7 th November 2001, organized by Kuwait University, Kuwait.
16. **P. K. Sadhu**, Prof. (Dr.) R.N. Chakrabarti, S. P. Chowdhury and B. M. Karan, “A clean heat generation on fluid in non-metallic pipe-line using BJT and IGBT” – International Seminar on environmentally clean power generation technologies “CLEAN POWER” held on 29-30 th November 2000, organized by MECON Ltd, Ranchi; P.P. – 176-184.

National Conference

1. **P. K. Sadhu**, N. Pal, D. Sinha, and T. K. Chatterjee “A comparative study between microwave cooking and induction heated cooking” – published in the proceedings of the National Seminar on “Frontiers in Electronics, Communication, Instrumentation and Information Technology FECIIT - 2008” held on 13-15th October, 2008, organized by Department of Electronics and Instrumentation Engg., Indian School of Mines University, Dhanbad-826004, P.P. – 318-323.

2. Nitai Pal, **P. K. Sadhu**, T. K. Chatterjee and U. Prasad, “Role of electrical energy conservation and management in industries” – published in the proceedings of the National Seminar on “Crushing, Screening & Conveying CS & C - 2008” held on 11-12th Sep, 2008, organized by Department of Mechanical Engg. & Mining Machinery Engg., Indian School of Mines University, Dhanbad-826004, P.P. – 29-34.
3. **P. K. Sadhu**, Nitai Pal, D. K. Mitra and Dola Sinha, “Energy conservation and losses management in rotating electrical machines” – published in the proceedings of the National Seminar on “Crushing, Screening & Conveying CS & C - 2008” held on 11-12th Sep, 2008, organized by Department of Mechanical Engg. & Mining Machinery Engg., Indian School of Mines University, Dhanbad-826004, P.P. – 157-165.
4. **P. K. Sadhu**, Nitai Pal, Rupendranath Chakrabarti and Tarun Kumar Chatterjee, “Circuit and Wave Analysis of a New Generation Radio Frequency Mirror Inverter Applied to Induction Heating” – published in the proceedings of the National Seminar on “Condition Monitoring Overview & Advanced Techniques COMOAT-06” held on 15-16th Sep, 2006, organized by Department of Mechanical Engg. & Mining Machinery Engg., Indian School of Mines, Dhanbad-826004, P.P. – 367-378.
5. **P. K. Sadhu**, T. K. Chatterjee, D. K. Mitra, S. Chattopadhyaya and Upendra Prasad , “On-line Monitoring and Actuation for production of Rubber Hose, V-Belts & Conveyor Belts” – published in the proceedings of the National Seminar on “Condition Monitoring Overview & Advanced Techniques COMOAT-06” held on 15-16th Sep, 2006, organized by Department of Mechanical Engg. & Mining Machinery Engg., Indian School of Mines, Dhanbad-826004, P.P. – 265-272.
6. S. Chattopadhyaya, **P. K. Sadhu**, T. K. Chatterjee, D. K. Mitra and U. Prasad “Micro-processor based intelligent process control of vulcanization of steel cord belt conveyor” – published in the proceedings of the National Seminar on “Recent advances in theoretical and applied seismology” held on 20-21 th March, 2006, organized by department of Applied Mathematics, Indian School of Mines, Dhanbad-826004, P.P. – 21
7. **Pradip Kumar Sadhu**, Rupendranath Chakrabarti and Swaroop R. “A PC based all time vault system” – published in the proceedings of the 27 th National System Conference “NSC 2003” held on 17-19 th Dec 2003, organized by Department of Electrical Engineering, IIT Kharagpur; P.P. – 91-94
8. **P. K. Sadhu**, S. Chattopadhyaya and D. K. Mitra “Implementation of closed loop PC based control of cure monitoring process of OTR tyres” – published in the proceedings of the National Seminar on “Tyres in Mining & Allied Sectors” (TIMAS) held on 21-22 th Nov, 2003, organized by Indian School of Mines, Dhanbad-826004, P.P. – 21

9. **Pradip Kumar Sadhu**, Rupendranath Chakrabarti, Narendranath Jana and Nitai Pal “A novel radio-frequency series load resonant inverter for induction cooking” – published in the proceedings of the XII th National Power System Conference “NPSC 2002” held on 27-29 th Dec 2002, organized by Department of Electrical Engineering, IIT Kharagpur; Vol – II, P.P. – 595-598
10. **(Dr.) P. K. Sadhu**, Prof. (Dr.) R. N. Chakrabarti, Narendranath Jana and Nitai Pal “High efficient industrial induction heating using phase shifted PWM inverter” – published in the proceedings of National Seminar EPIC “IEEE ACE 2002” held on 20-21 th Dec 2002, organized by IEEE Calcutta Section; P.P. – 418-421
11. **(Dr.) P. K. Sadhu**, N. L. Nath, Prof. (Dr.) R. N. Chakrabarti, Prof. (Dr.) S. K. Mukherjee and Prof. (Dr.) B. M. Karan, “Modified half-bridge superimposed radio-frequency series resonant converter for induction cooking” – published in the proceedings of National Seminar EPIC “IEEE ACE 2002” held on 20-21 th Dec 2002, organized by IEEE Calcutta Section; P.P. – 101-104
12. **Dr. P. K. Sadhu**, Swaroop R., Prof. (Dr.) R. N. Chakrabarti, S Dasgupta, Md. S. Khan and P. K. Gupta, “A novel logic design for PC based all time vault system” – published in the proceedings of National Seminar on Indian power scenario present & future perspective “POWER-2002” held on 1-2 nd November 2002, organized by BIT (Mesra) & Institute of Engineers (I), Ranchi; P.P. – 130-134
13. **Dr. P. K. Sadhu**, Prof. (Dr.) R. N. Chakrabarti, Mrs. N. L. Nath, , N. Jana, N. Pal and N. K. Batchu, “High efficient industrial induction heating using radio-frequency mirror inverter” – published in the proceedings of National Seminar on Indian power scenario present & future perspective “POWER-2002” held on 1-2 nd November 2002, organized by BIT (Mesra) & Institute of Engineers (I), Ranchi; P.P. – 117-121
14. **Dr. P. K. Sadhu**, Mrs. N. L. Nath, Prof. (Dr.) R. N. Chakrabarti, and N. Pathak, “A novel approach to real time physical model of energy efficient induction heated appliances” – published in the proceedings of National Seminar on Indian power scenario present & future perspective “POWER-2002” held on 1-2 nd November 2002, organized by BIT (Mesra) & Institute of Engineers (I), Ranchi; P.P. – 143-148
15. **P. K. Sadhu**, Prof. (Dr.) S. K. Mukherjee, Prof. (Dr.) R. N. Chakrabarti, (Dr.) S. P. Chowdhury and (Dr.) B. M. Karan, “High efficient contamination free clean heat production for medicinal plant” – published in the proceedings of the III rd All India People’s Technology Congress; held on 9-11 th Feb, 2000, organized by FOSET, Kolkata; P.P. – Energy – 35
16. **P. K. Sadhu**, Prof. (Dr.) R. N. Chakrabarti, (Dr.) S. P. Chowdhury and (Dr.) B. M. Karan, “Design of new generation fluid heating in non-metallic pipe-line incorporating auto-tuning PID control based PWM resonant IGBT inverter” – published in the proceedings of National Seminar on Mechatronics on manufacturing system “MACMAN-2000” held on 25-26 th March 2000, organized by BIT (Mesra) & Institute of Engineers (I), Ranchi

17. **P. K. Sadhu**, Prof. (Dr.) R. N. Chakrabarti, (Dr.) S. P. Chowdhury and (Dr.) B. M. Karan, “New generation fluid heating in non-metallic pipe-line using high-frequency load resonant BJT inverter” – published in the proceedings of National Seminar on applied systems engineering and soft computing “SASESC-2000” held on 4-5 th March 2000, organized by Faculty of Engineering Dayalbagh Educational Institute, Agra; P.P. – 354-359
18. **P. K. Sadhu**, Prof. (Dr.) R. N. Chakrabarti, (Dr.) S. P. Chowdhury and (Dr.) B. M. Karan, “Design of resonant high frequency inverter for induction heating” – published in the proceedings of the VII th West Bengal State Science & Technology Congress; held on Feb 28 – March 1, 2000, organized by Jadavpur University, Kolkata-700 032; P.P. – ELC-3
19. **P. K. Sadhu**, Prof. (Dr.) R. N. Chakrabarti, (Dr.) S. P. Chowdhury and (Dr.) B. M. Karan, “Energy conversion by resonant high frequency inverter for induction heating” – published in the proceedings of National Seminar on energy technologies for sustainable development “NSE-99” held on 17-18 th Dec 1999, organized by BIT (Mesra), Ranchi; P.P. – 107-118