

## BIO-DATA

**1. NAME : Professor (Dr.) Manabendra Nath Bandyopadhyay**

**Address :- Director, Haldia Institute of Technology , ICARE Complex, HIT, Campus, PO-HIT, Haldia , District- Purba Medinipur, Pin -721657, West Bengal.**

**2. Designation :-**Ex Director NIT Calicut(3years) and Ex Director NIT Kurukshetra (5 years) on deputation from NIT, Hamirpur. Ex professor (elect) N.I.T Hamirpur from 6.10.1995 & retired on 31.8.2014. Presently working as Director at Haldia Institute of Technology , oldest private Engineering college of West Bengal.

**3. PERMANENT ADDRESS** : Dr. M. N. Bandyopadhyay  
C/O Dr. S. N. Bandyopadhyay  
18/17, Biren Roy Road West,  
(Opposite to Bidya Bharati School), Natun Para,  
Bata Colony, Kolkata-700034  
Telephone 08945523302, 08945523301, 07044305046,  
09836309055,09830193624  
E-Mail: [mbandyopadhyay@yahoo.com](mailto:mbandyopadhyay@yahoo.com)

**4. DATE OF BIRTH** : 24-08-1949.  
(Twenty Fourth of August, Nineteen forty nine)

### **5. EDUCATIONAL QUALIFICATIONS:**

- a) Passed Higher Secondary Examination in First Division in the year 1965 from the Board of Secondary Education, Govt. of West Bengal (India)
- b) Passed Bachelor of Engineering from Jadavpur University Calcutta (India), in year 1970 with First Class Honours (i. e. 80% marks in average)( Electrical Engineering)
- c) Passed the qualifying Examination of Ph. D. (Engg.) on Master of Engineering subjects, in the year 1975 from Jadavpur university, Calcutta (India)
- d) Received Ph. D. (Engg.) from Jadavpur University Calcutta (India), in the year 1976.

**Subject of Thesis**, “Optimal design of Induction motor by the use of Digital Computer”. Thesis was highly recommended by Professor I. N. Postkinov of USSR.

**6. EXPERIENCE:** Total 43 Years 3 months (Considering Teaching and Industrial).

Presently working as Director of Haldia Institute of Technology, oldest private Engineering institute of West Bengal.

### **7. DETAIL OF EXPERIENCE**

- a) I was Director of NIT, Calicut from 15.9.2011 on deputation from NIT, Hamirpur being a HAG Scale Professor.(Retired on 31.8.2014)
- b) I was Director of Mahendra Educational Institutions, Tamil Nadu from 22.11.2010 to 6.9.2011 on EOL from NIT, Hamirpur.

- c) I was Professor (Electrical) at NIT, Hamirpur from 1.11.2010 to 21.11.2010 & 7.9.2011 to 8.9.2011 at HAG scale.
- d) I was Director of NIT, Kurukshetra & joined on deputation from NIT, Hamirpur on 1.11.2005 & I was also Mentor Director for NIT, Uttarakhand from 3<sup>0th</sup> October, 2009. I completed the term on 3<sup>1st</sup> October, 2010.
- e) I was permanent Professor in Electrical Engineering Department, NIT, Hamirpur (HP)-177005. from August,2004 to September 2005. I was also Dean (AA & RG). & CVO.
- f) I had taken leave (lien) from NIT, Hamirpur, India on the Month of October 2002 and joined at Arba Minch University, Ethiopia on 11-10-2002 and worked as Head of the Department of electrical Engineering up to July, 2004.
- g) I was Dean (Academic), Controller of Examination and Full Professor and Head (Electrical) of NIT, Hamirpur (HP) (A Deemed University) of REC, Hamirpur. I was also engaged as the Member of the Board of Governors) REC, Hamirpur (HP), Formerly I was Dean Planning and Development and Dean Industrial Research and Consultancy. I joined as Full Professor on 06-10-1995.
- h) From 15<sup>th</sup> September, 1993 to 4<sup>th</sup> October, 1995 I was Head of Power Electronics in Electrical and Electronics Engineering Department of famous University, Birla Institute of Technology & Science, Pilani, Rajsthan & was also the Senate member of the University. My rank was Associate professor when I left the Job.

**I Have taught in the Bachelor Engineering and Master Engineering level the following subjects:**

### **FOR BACHELOR OF ENGINEERING LEVEL**

#### **I. Electromechanical energy System:**

Theory, performance, testing, application and control of DC machines, synchronus machines & transformers, load frequency, Experiments on testing and control of machines, fractional HP motors, miniature motors.

#### **II. Power System:**

Transmission line parameters and calculations, circle diagram, incidence and network matrices, algorithm for network matrices, load flow studies, circuit breaker, optimum generating strategy, load frequency control, insulators, power system, cables, corona, protection of generators, transformers and lines.

#### **III. Advanced Power System:**

Symmetrical components, sequence impedances, fault calculation, short circuit studies, circuit breakers and their selections, power system stability, waves on transmission lines, protective devices, grounded and un-grounded systems.

#### **IV. Power Electronics:**

PNPN devices, power transistors characteristics, rating and specification, triggering mechanism and commutation circuits, controlled rectifier circuits, inverter (DC to AC converters), choppers (DC to DC converters), speed control of AC motors, other industrial applications of thyristors and power transistors, voltage regulation and starting of electrical drives, logic modules for static converters, introduction to application of microprocessor for electrical drives.

## **V. Control Systems:**

Mathematical model of physical systems, feedback characteristic of control systems, control system components, time response analysis, stability, frequency response, state space analysis, compensation.

## **VI. Digital Signal Processing:**

Sampling process, representation of discrete-time signal; use of transformers in signal spectrum analysis, Fourier transform-Fast Fourier transforms, Z-transforms, Realization of filters, recursive and non-recursive filters, effects of quantization and finite word length, hardware implementation.

## **VII. Communication Engineering:**

Modulation & Demodulation, Telephony and Telegraphy, Radar, Television.

## **FOR MASTER OF ENGINEERING LEVEL:**

### **I. Solid State Drives:**

Review of power devices and control circuit, DC motors control using two quadrant and four quadrant converters, cyclo-converters, analysis of harmonics, AC regulators, chopper circuit using thyristor switches, voltage source & current sources, inverters, PWM drives, harmonic reduction, power factor control, measurement, sensing and full detection in thyristor systems, microprocessor based control for drives.

### **II. Advanced power system and Analysis:**

Comprehensive study of the sequence of transmission lines, generators, motors and transformers, application of digital computers to power system analysis and design, short circuit calculation, load flow and transient stability analysis of extensive power systems, power system reliability, HVDC power transmission etc.

### **III. Lot of Master of engineering thesis had been guided by me at India.**

### **IV. RECENTLY STUDENTS ARE PERFORMING Ph. D UNDER ME.**

i) I was Assistant Professor in Electrical and Electronics Engineering Department in the Mustansiriyia University, Bagdad, IRAQ from September, 1989 to January, 1992, there

I had taught:

- a) Advanced Power system
- b) Electrical Machines.
- c) Power Electronics.
- d) Power System.
- e) Circuit Theory
- f) Electronics.

j) In the first part of my carrier I was engaged in Damodar Valley Corporation, (a large Power Organization of Govt. of India generating 1800 MW power) up to the rank of a senior level of Engineer. There I was mainly engaged in the design department. Types of work which I had to perform mainly are the following:

Design of substation layout up to 220 KV system, preparation of general layout, foundation layout, schematic diagram, wiring diagram, control panel arrangement, protection layout, bill of materials,

specifications of different equipments used in the substation. Delivered several lectures in the training center of the said organization to the Engineering Graduates. Topics of Lectures were:  
Study of technical and economic problems in energy conversion principles & devices, present technology including technical and economic comparison of thermal, hydro and nuclear methods, future energy technology, fusion devices, MHD, solar and fuel cells.

## **8. PUBLICATIONS:**

### **A. Papers:**

1. "Optimization Techniques in Electrical Machine Design" Vol. 73, PT EL, 2, June 1992 (Journal of Institution of Engineers, India) Dr. M.N. Bandyopadhyay.
2. "Simulation study for the Acceleration of convergence of Power system load flow Problem " 53RD Research and Development Session, Bhubaneswar, May, 1986 CBIP. Dr. M.N. Bandyopadhyay. Received CBIP Medal for this paper.
3. "A study on Enhancement of Dynamic Stability region"54<sup>th</sup> R & D Session, Ranchi30.
4. 1998-3.5.88, CBIP, M.N. Bandyopadhyay & A.K. Jain. "Optimum design of Electrical Machines & its Practical Feasibility in the Manufacturing System" M.N. Bandyopadhyay, (UGC Seminar March 12-13, 1994, at BITS, Pilani).
5. "Mathematical Approach Towards Power System Load Flow Problem" M.N. Bandyopadhyay (UGC Seminar on issues in Energy 29th-30th November, 1993 at BITS, Pilani).
6. "Optimization Technique in the Induction Motor Design any Applying Theory of Games. "M.N. Bandyopadhyay. (Journal of Institution of Engineers, IRAQ) September, 1989.
7. "Optimal Design of Induction Motor by Gradient Techniques" M.N. Bandyopadhyay (Journal of Institution of Engineers IRAQ, January, 1990.)
8. "Optimal Design of Induction Motor by Dynamic Programming" M.N. Bandyopadhyay (Journal of Institution of Engineers, IRAQ, May, 1990).
9. "Statistical Approach of Induction Motor Optimization by Monte Carlo Method" M.N. Bandyopadhyay (Journal of Institution of Engineers, IRAQ, September, 1990).
10. "A study of the Fault of a Turbo Alternator in a Power Station" M.N. Bandyopadhyay (Journal of Institution of Engineers, IRAQ, May, 1991).
11. "Upliftment of the voltage Profile of a Power System by Applying Gradient Technique. "M.N. Bandyopadhyay (Journal of Institution of Engineers, IRAQ, Septmeber, 1991).
12. "Safety aspects of Trubo- alternator brush grounding" Dr. M.N. Bandyopadhyay & Raj Kumar Jarial, All India Seminar on "Safety aspects of Industrial& Domestic Installation" Institution of Engineers, India, Place Karnal on 29.10.1995.
13. "Computer aided design of Electrical machines and its manufacturing" -Dr. M.N. Bandyopadhyay & Mr. A. Chandel, Seminar held at college of Engineering & Technology, Bathinda on March 8-9, 1996.
14. "Micro-centred based PLC & ITS INDUSTRIAL APPLICATION"- R.K. JARIAL & Dr. M.N. BANDYOPADHYAY- National Symposium on Computer application in management & modern technological development, October 13, 1996, The Institution of Engineers (India) Karnal Centre).
15. "Speed control of DC Motro by Analog computation"- Dr. M.N. Bandyopadhyay, Professor & Head & Er. Y.R. Sood, A.P. -- National Symposium on computer application in management &

- modern Technological development, October 13, 1996, The Institution of Engineers (India), Karnal Centre.
16. "Computer applications in induction motor drive"- Dr. M.N. Bandyopadhyay & R. K. Jarial. National Symposium on computer application in management & modern Technological development, Oct. 13. 1996 The Institution of Engineers (India), Karnal Centre.
  17. "Speed control of Induction Machine by Power Electronics"- Dr. M.N. Bandyopadhyay & Er. Y.R. Sood, National Conference on "Electric drives & Control for transport systems" 16th to 18th January, 1997-by Department of Electrical Engineering Samrat Ashok Technological Institute (Engineering Institute) VIDHISHA (MP), 464 001.
  18. "Role of Entrepreneurship Programme for Improvement in Technical Education" 26th Annual convention of ISTE at MREC, JAIPUR ON JANUARY 4-6, 1997- Er. Yog Raj Sood & Dr. M.N. Bandyopadhyay.
  19. All India seminar on" Efficient use of electric motors, Generators and Drives for Industries and utilities for purpose of achieving saving in energy"- The Institution of Engineers (India), Karnal Local Centre at CRS College of Engineering, Murthal (Sonapat) on February 16, 1997. Computer Aided Optimal Design of 3 phase Induction Motor- Dr. M.N. Bandyopadhyay Prof. & Head (E) & R.K. Jarial, Lecturer.
  20. "Computer aided speed control of Induction machine, Efficient use of motors. generators and drives in industry and utilities for purpose of achieving saving in energy” - Dr. M.N. Bandyopadhyay Prof. & Head, and Mr. Y.R. Sood, A.P. - All India Seminar held at C.R. State College of Engg. Murthal (Sonapat on 16-02-97 Insittution of Engineers (India) Karnal Local Centre.
  21. "Computer aided optimal Design of a 3 phase induction motor"- Dr. M.N. Bandyopadhyay Prof. & Head (Elect.) & Mr. R.K. Jarial, Lecturer, Eelct., REC, Hamirpur (H.P.).- International conference of computer application in Elect. Engg. being organised by Roorkee University, India on 8-11 September, 1997.
  22. "HVDC Multi-terminal Power flow by controlling converter parameter"-- Mr. Yog Raj Sood, A.P. Elect., & Dr. M.N. Bandyopadhyay Prof. & Head, Elect., NIT, Hamirpur (HP)- International R&D conference being organised by CBIP, New Delhi at Vadodara, Gujarat, India, from 21 to 24 Oct., 1997.
  23. "Speed Control of Induction Machine by Power Electronics"- Dr. M.N. Bandyopadhyay, Prof. & Head (Elect.) and Mr. Y.R. Sood, A.P. Elect., REC, Hamirpur (HP) Organised by ED COTS-97 at SATI (Engg. Institute) VIDISHA, MP on 16-18 Jan, 1997.
  24. 'Self excited oscillations of a controlled Hydro-Turbine Synchronour generator with long penstock" - R.K. Jarial, V.P. Batra, M.N. Bandyopadhyay and Y.R. Sood (Proceeding of the International conference on Hydro Power Development in Himalayas, (April 20-22, 1998 Shimla, India) NIT, Hamirpur India.
  25. "Presented paper on "Optimum Design & Manufacture of Engineering Materials" at Bangladesh on 25-10-97 by Dr. M.N. Bandyopadhyay.
  26. "HV DC Technology for inter connection and bulk power transmission - Mr. Y.R. Sood, Dr. M.N. Bandyopadhyay & Mr. R.K. Jarial - 4th Afro- Asian International conference 12-15 December, 1998 Cairo, Egypt.

27. "Energy sources for pollution free environment" - Er. Y.R. Sood and Dr. M.N. Bandyopadhyay - National Conference on pollution prevention and control held at REC, Hamirpur on Dec. 23-24, 98.
28. "Active Noise and vibration Control and measurement of signal to Power Ratio" -Dr. M.N. Bandyopadhyay & Mr. Y.R. Sood, Journal of Institution of Engineers (India) (Volume 79, March 1999)
29. "Analytical and practical approach on reactive power compensation for strengthening Electric power distribution network" -Dr. M.N. Bandyopadhyay and Mr. R.K. Jarial, Journal of the Institution of Engineers (India) (Volume 80, May 1999)
30. "Noise Analysis of Rotating Electrical machine Utilizing Tools of Digital Signal Processing" -Dr. M.N. Bandyopadhyay & Mr. Y.R. Sood presentation of the paper on March 27, 1999 at Aurangabad at the semi annual paper meeting of the Electrical Engineering division of the Institution of Engineers (India).
31. "Noise Analysis of Rotating Electrical Machines Utilizing tools of Digital Signal Processing"- Dr. M.N. Bandyopadhyay & Mr. Y.R. Sood, Journal of the Institution of Engineers (India), Vol. 80, August, 1999.
32. "Prevention of Environmental Hazards & sustainable Management of Energy from Wastes Beyond 2000" - Y.R. Sood & Prof. M.N. Bandyopadhyay - National Seminar on "Environmental Hazards sustainable development" by REC, Hamirpur on Nov. 22-23, 99.
33. "Reactive Power Compensation for Strengthening Electric Distribution network-a case study", National convention of electrical engineers & National Seminar on sustainable energy options for the new millennium at jaipur on Nov. 2000- Dr. M. N. Bandyopadhyay & Sh. R. K. Jarial. The Institution of Engineers (India), Rajasthan State Center Electrical Engineering division.
34. "Permanent Magnet Brushless DC Motor-a review", presented at National Convention of Electrical Engineering & National Seminar on sustainable energy options for the new millennium at jaipur on 25-26 Nov., 2000- Dr. M. N. Bandyopadhyay & Sh. R. K. Jarial.
35. "Non-conventional Energy Sources" M.N. Bandyopadhyay & O. P. Rahi-Proc. All India Seminar, power system, Recent Advances & prospects in 21<sup>st</sup> century, 17<sup>th</sup> Feb., 2001, Jaipur, Organized by Department of Electrical engineering, Malaviya Regional Engineering College, Jaipur.
36. Presented paper entitled " Digital Signal Processing as a tool for noise analysis", in the 9<sup>th</sup> International symposium in integrated circuits, device and system being held at Singapore from 3-5<sup>th</sup> Sep., 2001 by Nanyang Technological University, Singapore.
37. 46<sup>th</sup> congress of ISTAM (An National meet) Dec. 19-22, 2001 at REC, Hamirpur on "Production Cost Optimization of the Engineering Equipments with the help of several Techniques of Optimum control system", M.N. Bandyopadhyay.
38. "International conference on Electrical & Computer Engineering" from 29-10-2003 to 1-11-2003 at Bahirdar University, Ethiopia. Comparative study of different techniques of electrical machine Design.-- M.N. Bandyopadhyay.
39. "Conference on Engineering Education, Technology and environment", Jimma University, Ethiopia from 17-12-2003 to 19-12-2003. "The application of Signal processing on noise analysis of Electrical Machine", Dr. M.N. Bandyopadhyay.

40. "Extended Kalman Filter approach to joint State and Parameter Estimation", Dr. M.N. Bandyopadhyay, R. N. Sharma, R. Prakash, journal of Institution of Engineers (India), volume 84, Nov., 2003.
41. Achievement in the field of Digital Signal Processing – Dr. M. N. Bandyopadhyay & Sri B.B.Sharma, Journal of The Institution Of Engineers ( India ) Volume 85 , July 2004.
42. " A review on transformer Diagnostics " – Dr.M.N.Bandyopadhyay.Presented paper at 37 th North American Power Symposium , IOWA State University , PES, IEEE 23.10.2005-25.10.2005.& also acted as a chairperson of a session.
43. Presented paper by Dr. M.N.Bandyopadhyay , at the international conference on Condition monitoring & Diagnostics , Changwon , Korea , April 2-5 ,2006 & also acted as a Chairperson in one session.
44. Presented paper by Dr.M.N.Bandyopadhyay , at thr international conference at Tampere university at Finland on " Hydro Power Development for sustainable Growth in India , on 16.6.2007
45. Presented paper by Dr.M.N.Bandyopadhyay at the national seminar at NIT, Kurukshetra, Haryana on "Some Ideas on the need of intelligent Control " on 25,6.2007
46. Presented paper by Dr.M.N.Bandyopadhyay, at GMSARN International Conference '2007 on " Transformer Diagnostics in the practical field " on 12-14 th December , Pattaya, Thailand..
47. Presented paper by Dr.M.N.Bandyopadhyay, at International Conference on Condition Monitoring & Diagnosis , Beijing , China ( CMD 2008 ) on " Condition monitoring for Power Transformer " on 21-24<sup>th</sup> April '2008 at Beijing, China 2008.
48. "Dissolved Gas Analysis for incipient Fault in Power Transformers : A Bibliographic Survey ",DEIS : IEEE Electrical Insulation Magazine , Volume:26,issue:6,pages 41-46 Nov-Dec 2010.[ISSN:0883-7554]- Sukhbir Singh and M.N.Bandyopadhyay.
49. " Duval Triangle : A Noble Technique for DGA in Power Transformers ", Medwell Journals : International Journal of Electrical & Power Engineering , issue 4(3), page 193-197,2010. [ISSN: 1990-7958] Sukhbir Singh and N.Bandyopadhyay.
50. " New Concept on Time, Space and Velocity of light"--- International Journal of Leadership and Management ,EILM, Kolkata –Vol,2 No-1, August-November,2010. Dr.S.N.Bandyopadhyay & Dr.M.N.Bandyopadhyay.
51. "Software implementation of Duval triangle technique for DGA in power transformers "--- International journal of Electrical Engineering ISSN 0974-2158 Volume 4,Number 5(2011) ,pp529-540 ©International research Publication House .- Sukhbir Singh ,Dheeraj Joshi and M.N.Bandyopadhyay.
52. "Machine Diagnostics in the practical field."--- International Journal of Leadership & anagement , ISSN 0975-069X ,Vol -3 .Issue-1, August-November 2012 pp 19-27, Dr.M.N.Bandyopadhyay.
53. " Dental Implants and clinical applications " ---- International Journal of Leadership & management , ISSN 0975-069X , Vol -3 , Issue -1 , August-November 2012 pp 32-34- Dr.M.N.Bandyopadhyay, Dr.S.N.Bandyopadhyay, Dr. Dipto De.
54. "Future Trends in Applications of Computers in Science & Technology"-International JOURNAL of Innovative Practice and Applied Research(IJIPAR), Vol1, July-December-2014, ISSN-2349-8978.—Dr.M.N.Bandyopadhyay.

55. ‘An algorithm for Optimal reactive power Dispatch using Particle Swarm Optimisation.’—IJIPAR, Vol 1, July-December-2014, ISSN-2349-8978- Mini V, & Dr.M.N.Bandyopadhyay.
56. “Concept of Dissolved Gas Analysis in Power Transformer” –IJIPAR, VOL 3, JULY 2015, ISSN-2349-8978.- Dr.M.N.Bandyopadhyay.
57. “ Use of digital signal processing for noise analysis of Rotating Electrical Machines  
“Dr.M.N.Bandyopadhyay – International Journal of HIT Transaction on ECCN, Volume:1, Issue: 1A, Oct-Mar,2015-2016. ISSN:0973-6875

#### **B. Books Published ( Twelve Books )**

- 1) “Questions and Answers in Electrical Engineering” Dr. M. N. Banerjee (Bandyopadhyay) (M/s Khanna Publishers), (1<sup>st</sup> addition 1988, 2<sup>nd</sup> addition 1993,3<sup>rd</sup> addition 1996).
- 2) “Questions and Answers in Electronics Engineering” (M/s New Central Book Agency, India,) (first addition 1994), Dr. M. N. Bandyopadhyay.
- 3) “Questions and Answers in Power Electronics” (M/s New Central Book Agency, India, (first addition 1994), Dr. M. N. Bandyopadhyay.
- 4) “Theory and Practice of Power Electronic & Solid State Drives” Dr. M. N. Bandyopadhyay (M/s Khanna Publishers, 1998).
- 5) “Theory and Practice of the Control Engineering” (M/s Prentice Hall of India Pvt. Ltd.), Dr. M. N. Bandyopadhyay.
- 6) Power System (Theory and Practice), (M/s Prentice Hall of India, Pvt. Ltd.), Dr. M. N. Bandyopadhyay.
- 7) “Signals and Digital Signal Processing” (M/s Prentice Hall of India, Pvt. Ltd.), Dr. M. N. Bandyopadhyay.
- 8) Theory & Practice of Electrical Machine by M/S Prentice Hall. Of India Pvt Ltd. – Dr.M.N.Bandyopadhyay
- 9) Communication Engineering by Prentice hall India Learning Private Limited- Dr.M.N.Bandyopadhyay
- 10) Optical Communication & network By Prentice Hall India Learning Private Limited – Dr.M.N.Bandyopadhyay.
- 11) “ Management @ Glance, Vol-1” -Dr.S.N.Bandyopadhyay, Dr.M.N.Bandyopadhyay, Dr.B.M.Zakir. Publisher-Darbar Kalam Private Limited.
- 12) Introduction to Health care & Pharmaceutical Management – Dr.S.N.Bandyopadhyay, Dr.M.N.Bandyopadhyay, Dr.B.M.Zakir, Dr.Saurav Gangyopadhyay, Mrs. Jayshree Majumder. Copyright @3015 Durbar Kalam. ISBN 978-81-923687-8-8

#### **9. PROJECT HANDLED:**

- 1) Power recovery induction generators for large vertical axis wind turbines.
- 2) HV DC power transmission.
- 3) Optimum design of machine.
- 4) Load flow study.
- 5) Study of transient & dynamic stability of power system.
- 6) Study of brush-less DC generator.



- 7) Study of gap on Ambala (,Haryana) Scientific instruments at the sponsorship of DST, India
- 8) Study of gap on Agricultural implements of Karnal ( Haryana ) at the sponsorship of DST, India.

**10. TYPES OF LABORATORY HANDLED:**

- a) In-charge of Power Electronics Laboratory of BITS, Pilani, supervised various projects of Power Electronics Laboratory.
- b) Developed Electrical Machine Laboratory of the University at IRAQ & also prepared laboratory manual.
- c) Developed “Electrical Machine lab. & HV lab.” in NIT, Hamirpur (HP).

**11. Ph. D. THESIS GUIDED:**

- a) “Optimization of Electrical Machine Design” at IRAQ.
- b) Condition monitoring of Power Transformer.
- c) Presently guiding Ph.D on “ Optimal allocations of FACTS devices in deregulated Electricity market. “ to Mini V , Asst Professor., Govt Engineering College, Thrisur, Kerala, Pin-680009
- d) Presently guiding on “ Adaptive Relaying for smart grid applications “ to Sujo P George (Roll No : P120030EE )
- e) Recently (2011) examined a Ph.D thesis of NIT Jaipur on “Artificial Intelligence based high performance Induction Motor Drive.” written by Mr Rajesh Sankarrao Surjuse.”

**12. CONSULTANCY DONE:**

- a) Made estimate for the big construction Project of a Saudi Arabia Company, (SALMAN AL DHUAIM ESTABLISHMENT)
- b) Developed machine design of Electrical Motor of an Indian Company.
- c) High Voltage testing at NIT, Hamirpur.

**13. PRESENT FIELD OF INTEREST:**

- a) Digital signal Processing
- b) Solid State Drives
- c) Condition Monitoring

**14. BRIEF IDEA ABOUT THE WORK DONE:**

- A.** (a). Optimum design of electrical machine. Induction machine is optimized from the cost point of view. Several procedures have been adopted for cost optimization:
- (i) Jordan Estimation Techniques.
  - (ii) Use of Penalty Function.
  - (iii) Sequential unconstrained minimization techniques.
  - (iv) Zig-Zag motion along the boundary.
- (b). Direct search method.
- (c). Dynamic Programming.
- (d). Monte Carlo Method.
- (e). Theory of Games.

Some independent variables are taken, e. g., ampere conductor/metre, length/pole pitch, core depth, stator tooth depth/width. Flux density, rotor slot depth/width. Constraints are also considered keeping proper eye on the design aspect of the electrical machine, e. g. Temperature rise, maximum torque/full load torque, starting torque/ full load torque, starting current/ full load current.

In game theory two objective functions of contradictory nature are considered. One is cost and the other is efficiency. The cost is minimized & simultaneously the efficiency is maximized.

### **B. Load Flow Study and Stability Analysis:**

Gauss Seidel method is one of the well know methods for solving the problem of load flow. The value of acceleration of convergence of the said method is considered from the experience. But a new method has been established so that automatically the values of the acceleration of convergence both for real and imaginary parts will be developed for quicker convergence of the system. Adopting this method, the load flow study and the stability study have been made. Voltage profile of different buses of power system network has also been improved by utilizing Gradient Technique. The value of the reactive power to be provided is automatically found out and that ultimately improved the voltage profile of the buses.

### **15. EXTRA CURRICULAR ACTIVITIES:**

- a) Paper setter of Public Service Commission, SIKIM.
- b) Paper setter of Himachal Technical Board.
- c) Examiner of the famous technical institute of Kolkata, India.\
- d) Expert of Himachal Public Service Commission.
- e) Paper setter of AMIE (Institute of Engineers, India).
- f) Selected as a reviewer for the Technical Paper of the Journal of Institute of Engineers, India.
- g) Selected as a paper setter of the Institute of Engineers, India in the summer session examinations of 1997.
- h) Delivered lecture by Dr. M. N. Bandyopadhyay, Professor & Head (Electrical) at the Institution of Engineers (Mechanical) Bangladesh on 25-10-1997 on the topic, "Optimum design & manufacture of Engineering material,' at Khulna, Bangladesh.
- i) Nominated by American Biographical Institute, Inc. for prestigious title MAN OF THE YEAR-1998 IN 14-08-1998.
- j) Selected for the Century's most notable Medal American Biographical Institute, Inc USA on dated January 29, 1999.
- k) Selected member of the advisory board of UPSC, India.
- l) Received "Mother Teresa Excellence Award" on 29-08-2001 from "FRONT FOR NATIONAL PROGRESS" in the seminar on "Social Service and the inspiration for Mother Teresa" being held at Delhi.
- m) CHAIRMAN OF THE NBA ACCREDITATION OF AICTE.
- n) ADVISOR OF DST , TIFAC PROJECT ON TECHNOLOGICAL GAP STUDY ON SCIENTIFIC INSTRUMENTS AT AMBALA INDUSTRIAL CLUSTER AND AGRICULTURAL IMPLEMENTS AT KARNAL INDUSTRIAL CLUSTER.
- o) Nominated by Europe Business Assembly ( United Kingdom ) for " Socrates International Award " on 26.7.2007.

- p) To chair the interview board meeting of DRDO
- q) Member of the pay committee to suggest revision of pay of teachers in Engineering Colleges framed by AICTE on 22<sup>nd</sup> October, 2009.
- r) Expert of several travel grants & MODROBS of AICTE.
- s) Expert of UGC to assess physical & academic infrastructure of University.
- t) Expert of Kurukshetra University to assess state University.
- u) Paper Setter of Kurukshetra University.
- v) Selected Chairman (E&T AEC) by AICTE from June7, 2010.

**16. MEMBERSHIP IN THE PROFESSIONAL INSTITUTE:**

Fellow of the “INSTITUTION OF ENGINEERS, INDIA.

**17. NAME OF THE REFEREE:**

- (a) Dr.R.L.Chauhan – Ex-Chairman,BOG,NIT,Hamirpur  
KAHAN NIWAS, Kelston Estate ,Shimla-171001(HP)
- (b) Lt.Gen.(Dr) D.D.S. Sandhu –Vice Chancellor , Kurukshetra University,  
Kurukshetra -136119, Haryana.

**TOTAL YEARS OF EXPERIENCE = 43 Years 3 months**

Presently working as Director of Haldia Institute of Technology, oldest private Engineering college of West Bengal.

Retired Director NIT, Calicut on deputation from NIT, Hamirpur from 15.9.2011.Retired on 31<sup>st</sup> august 2014

Director ( From 22.11.2010 ) at Mahendra Educational Institutions, TamilNadu taking EOL from NIT, Hamirpur ( To 6.9.2011) .

Worked as Professor from 1.11.2010 to 21.11.2010 & 7.9.2011 to 8.9.2011 at NIT, Hamirpur & transit leave from 9.9.2011 to 14.9.2011

Director, NIT, KURUKSHETRA , Haryana, India ( From 1.11.2005 to 31.10.2010 ) & Mentor Of NIT, Uttarakhand( From 30.10.2009 to 31.10.2010)

**Old Experience starting from beginning:-**

Sr. No.	Post	Employer	Date of Joining	Date of Leaving	Pay Scale
1	Student Apprentice	Calcutta Electrical Supply Corp. Ltd.	02.01.71	31.12.71	Rs. 350/- pm stipend
2	Asst. Engineer/ Ex. Engineer	DVC, India	10.05.72	04.06.81	Rs. 750/- Rs. 2000/-
3	Electrical Engineer & lecturer	General establishment for implementing water & sewerage project, Govt. of IRAQ & College of Engineering Bagdad University.	04.06.81	04.06.82	ID 320

4	Executive Engineer	DVC, India	05.06.82	31.10.82	Rs 2200-5000
5	Electrical Engineer	State organization for oil Project, Govt. of IRAQ.	01.11.82	01.11.83	ID 351
6	Ex. Engineer/ Sr. Divisional Engg & Lecturer	DVC, India CTS, India	02.11.83 03.08.87	04.09.89 04.09.89	Rs. 2200-5000
7	Assistant Professor	Mustansiriya Uni. Bagdad, IRAQ	05.09.89	23.01.92	ID 1100
8	Sr. Divisional Engineer	DVC	24.01.92	31.12.92	Rs. 2200-5000
9	Electrical Engineer	Salman A AL-Duhaim Establishment, Saudi Arabia	8.01.93	07.09..93	SR 4000
10	Associate Prof. (Equivalent to Prof. Rank and above Assit. Prof. Rank)	BITS (Biral Institute of Technology and Science), Pilani, (India)	15.09.93	04.10.95	Rs 4500-6300
11	Prof. & Head (Electrical), Dean (P & D), Dean (IR & C), Dean (Academic) & Controller of Exam.	NIT, Hamirpur (HP) (Formerly REC) Prof. 06.10.95 to 09.10.02, COE 23.11.96 to 09.10.02, Dean (P & D) 01.04.97 to 08.09. 97, Dean (IR & C) 09.09.97 to 11.09.2000, Dean (Acad.) 12.09.2000 to 09.10.2002	06.10.95	9.10.02	Rs. 4500- 7300 New scale Rs. 16,400-22,400. Basic Pay 19550-00
12	Indian Expatriate Prof. & Head of the Department (Electrical)	Arba Minch University, Ethiopia	11.10.02	July, 2004	1100 US dollar pm (on Lien from NIT, Hamirpur (HP)).
13	Professor (EED)	NIT, Hamirpur (HP)	01.08.04	31.10.05	Rs. 16400-22400 (basic pay Rs.20450/-)

## RESUME

**Name** : Prof. (Dr.) Manabendra Nath Bandyopadhyay.  
**Designation** : Ex Director, NIT, Calicut & Ex Director, NIT, Kurukshetra

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E-Mail: [mbandyopadhyay@yahoo.com](mailto:mbandyopadhyay@yahoo.com)

**Highest Educational Qualification** : Ph. D. (Engineering)

**Field of Specialization** : Electrical machine & Power  
**Experience** (In No. of Years) : 43 Years 3months  
**Teaching & Research** : 18 Years  
**Administration** : 25 Years 3 months  
**No. of Publication** (Papers in referred Journals)  
**National** : 12 Nos.  
**International** : 17 Nos.

### Papers presented in conferences/ Seminars

**National** : 17. Nos.  
**International** : 11 Nos.  
**Awards** : 04 Nos.  
**Books** : 12 Nos