

CURRICULUM VITAE

Dr. Nand Kishor
Professor, Department of Electrical Engineering
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1. Personal Information

Gender Male
Nationality Indian

2. Education

January 2003- January 2006 (Awarded: Nov 2006)	Ph. D. Institute:	<i>Thesis Title-</i> Integrated Control of Small Hydro Power Plants Indian Institute of Technology, Roorkee, India
July 1997- January 1999	Master of Technology University:	<i>Specialization-</i> Energy Management Devi Ahilya University, Indore, India
July 1992- September 1996	Bachelor of Engineering Institute:	<i>Branch-</i> Electrical Engineering Malaviya Regional Engineering College Rajasthan University, Jaipur, India

3. Professional Experience: 15 years (More than 11 years after award of PhD degree) -

<i>Period</i>	<i>Post held</i>	<i>Employer</i>
August 2018 to till date	Professor	Motilal Nehru National Institute of Technology, (MNNIT) Allahabad, India
Nov. 2017 to August 2018	Associate Professor	University of Agder, Grimstad, Norway
October 2013 to Nov. 2017	Associate Professor	Motilal Nehru National Institute of Technology, (MNNIT) Allahabad, India
Aug 2012 to October 2013	Marie Curie Experienced Researcher (Marie Curie Fellow)	Department of Electrical Engineering Aalto University, Espoo, Finland
Feb 2012 to August 2012	Associate Professor	Motilal Nehru National Institute of Technology, Allahabad, India

Feb 2009 to Feb 2009 to	Assistant Professor	Motilal Nehru National Institute of Technology, Allahabad, India
June 2006 to Feb 2009	Lecturer	Motilal Nehru National Institute of Technology, Allahabad, India
March 2006 to June 2006	Lecturer	College of Science and Technology, Phuentsholing, Bhutan
January 2006 to March 2006	Lecturer	National Institute of Technology, Patna, India
May 1999 to March 2003	Lecturer	Royal Bhutan Institute of Technology (RBIT) Phuentsholing, Bhutan

4. Pedagogical Qualification/Experience

4.1 Teaching Experience: Lecture Courses taught:

At RBIT: From 1999-2003: [Responsible to conduct Lecture class, Tutorial (Exercise) class and Practical (Laboratory works) conduct examination, evaluate and grade them]

- Instrumentation and Control (Under-graduate level): *Taught for 3 years (1 semester per year)*
- Process Control (Under-graduate level): *Taught for 2 years (1 semester per year)*
- Hydroelectric Power Plant (Under-graduate level): *Taught for 2 years (1 semester per year)*
- Generation and Transmission (Under-graduate level): *Taught for 3 years (1 semester per year)*
- Digital Signal Processing (Under-graduate level): *Taught for 1 year (1 semester per year)*

At MNNIT: 2006-2017 [Responsible to conduct Lecture class, Tutorial (Exercise) class and Practical (Laboratory works), conduct examination, evaluate and grade them]

- Basic Electrical Engineering (Under-graduate level): *Taught for 3 years (1 semester per year)*
Book Referred for above course: Electrical Engineering Fundamentals by. Vincent Del Toro
- Electrical Machines-I (Under-graduate level): *Taught for 6 years (1 semester per year)*
Book Referred for above course: Electrical Machines by D P Kothari
- Electrical Machine-II (Under-graduate level): *Taught for 7 years (1 semester per year)*
Book Referred for above course: Electrical Machines by D P Kothari
- FACTS Devices (Under-graduate level): *Taught for 2 years (1 semester per year)*
Book Referred for above course: Understanding FACTS by N. G. Hingorani
- EHV AC & DC Transmission (Under-graduate level): *Taught for 3 years (1 semester per year)*
Book Referred for above course: HVDC Power Transmission Systems by K R Padiyar, Extra High Voltage A.C. Transmission Engineering by R D Begamudre.
- Neural Network & Fuzzy Systems (Under-graduate level): *Taught for 2 years (1 semester per year)*
Books Referred for above courses:
Fuzzy Logic with Engineering Applications by Timothy J. Ross, Neural Networks: A Comprehensive Foundation by Simon Haykin.
- HVDC Transmission (Post-graduate level): *Taught for 4 years (1 semester per year)*
Book Referred for above course: HVDC Power Transmission Systems by K R Padiyar
- Advanced Power System Operation and Control (Post-graduate level): *Taught for 4 years (1 semester per year)*
Book Referred for above course: Power System Stability and Control by P S Kundur.

Course Instructor during last 5 years (2013-2017): at MNNIT Allahabad, India

Sl. No.	Name of the Course	Total teaching hours per week (Lecture-Tutorial-Lab)	Year and Semester (July YYYY-June YYYY)	No. of students in class
1	(i) HVDC Transmission, EE2233, (Post-graduate level), Elective course	3-1-0	2013-14, Even	10
	(ii) AC Machines, EE1501, (Under-graduate level)	3-1-0		74
	(iii) AC Machine Lab (Under-graduate level, Group E1)	0-0-3		37
2	(i) Advanced Power System Operation and Control, EE2105, (Post-graduate level),	3-1-0	2014-15, Odd	17
	(ii) Power System Protection & Stability, (Under-graduate level), Elective course	3-1-0		34
	(iii) Power System Protection Lab ((Post-graduate level)	0-0-3		17
3	(i) HVDC Transmission, EE2233, (Post-graduate level),	3-1-0	2014-15, Even	9
	(ii) Modern Electrical Machines, EE1605, (Under-graduate level)	3-1-0		68
	(iii) AC Machine Lab (Under-graduate level, Group E1)			34
4	(i) Advanced Power System Operation and Control, EE2105, (Post-graduate level)	3-1-0	2015-16, Odd	17
	(ii) AC Machines, EE1501, (Under-graduate level)	3-1-0		69
	(iii) Power System Protection Lab ((Post-graduate level)	0-0-3		17
5	(i) HVDC Transmission, EE2233, (Post-graduate level)	3-1-0	2015-16, Even	10
	(ii) EHV AC & DC Transmission, EE1831, (Under-graduate level), Elective course	3-1-0		32
	(iii) Power System Lab (Under-graduate level, Group E2)	0-0-3		36
6	(i) Advanced Power System Operation and Control, EE2105, (Post-graduate level)	3-1-0	2016-17, Odd	16
	(ii) AC Machines, EE1501, (Under-graduate level)	3-1-0		71
	(iii) Power System Protection Lab ((Post-graduate level)	0-0-3		16
7	(i) HVDC Transmission, EE2233, (Post-graduate level)	3-1-0	2016-17, Even	9
	(ii) Power System-I, EE1403, (Under-graduate level)	3-1-0		76
	(iii) Power System Lab (Under-graduate level, E2)	0-0-3		38
8	(i) Advanced Power System Operation and Control EE2105, (Post-graduate level)	3-1-0	2017-18, Odd	17
	(ii) Power System-II (Under-graduate level)	3-1-0		73
	(iii) Power System Protection Lab ((Post-graduate level)	0-0-3		17

Course Instructor during Nov 2017-May 2018: University of Agder, Grimstad

- Spring semester: Renewable Energy in Power Grid, ENE229 (Under-graduate level), (4 hr lecture + 4 hr exercise class) per week (Teaching material uploaded on Canvas)

Course Curriculum Development: Involvement for-

- Under graduate courses in Electrical Engineering at MNNIT Allahabad, India
- Post graduate (Master of Technology in Power System) courses at MNNIT Allahabad, India
- Post graduate course in Renewable Energy and Hydropower Engineering at College of Science and Technology, Bhutan

The responsibility has been to develop frameworks for the different courses at under graduate and post graduate levels in the lines of ‘Programme educational objectives (PEOs) and Programme outcomes (POs).

4.2 External (Outside Institute) Evaluation/Examination Experience: Thesis evaluation at Master’s and PhD level:

- Gujarat Technical University, Ahmedabad, India: Evaluation for Master and Phd Thesis
- University of Kerala, Thiruvananthapuram, India: Evaluation for PhD Thesis
- National Institute of Technology, Tiruchirapalli, India: Evaluation for PhD Thesis
- Technical University of Madrid, Spain: Evaluation for PhD Thesis

4.3 Research Supervision

4.3.1 M. Tech Thesis (i.e. Post-graduate level): 17 numbers, At MNNIT (Allahabad), India 2006-2007

- (i) Modeling and simulation of hydro power plant for dynamic studies
- (ii) Energy efficient communication protocol for clustering network of wireless sensors

2007-2008

- (i) State-space modeling and simulation of hydro-hydro power system
- (ii) Fuzzy model representation of thermosiphonic solar water heating system

2008-2009

- (i) Study of dynamic performance of restructured asynchronous tie-lines power system with fuzzy based controller and parameter uncertainties

2009-2010

- (i) Optimized design of bioreactor for stem cell growth
- (ii) Electrical analog representation of hydro power plant components for identifying penstock dynamics

2010-2011

- (i) Computational intelligence in modeling and control of run-off river hydro power plant

2011-2012

- (i) Harmonic compensation in conventional and wind conversion system
- (ii) Phasor measurement unit in wide area monitoring and control
- (iii) Power flow control in PV/battery system with environmental conditions
- (iv) Interline power flow controller in two transmission line
- (v) Control of fuel cell/battery in distributed generation system

2014-15

- (i) Signal Processing and Classification of Events in PMUs data for Real-time Monitoring (This thesis won POSOCO award 2016 under Master’s Thesis category, <http://posoco.in/ppsa>)

- (ii) Small-signal analysis of power electronics interfaced generation resources in a micro grid

2015-16

- (i) Development of visualization toolbox for monitoring of electromechanical oscillations ((This thesis won POSOCO award 2017 under Master’s Thesis category and placed at rank 3 in the order of merit, <http://posoco.in/ppsa>)

- (ii) Steady-state and Dynamic analysis of Northern region Indian power grid model

4.3.2 Ph.D. Level supervision: At MNNIT (Allahabad), India

Completed: 7 numbers

- (i) Dr. Prakash Kumar Ray, Thesis title- Study of disturbances and frequency regulation in hybrid distributed generation system.
Supervised by: Dr. Nand Kishor and Dr. Soumya Ranjan Mohanty
- (ii) Dr. Shashi Kant Pandey, Thesis title - Frequency regulation in hybrid power system
Supervised by: Dr. Soumya Ranjan Mohanty and Dr. Nand Kishor
- (iii) Dr. (Mrs) Deepshikha Agarwal, Thesis title- Applications of wireless sensor network in offshore wind farm.
Supervised by: Dr. Nand Kishor
- (iv) Dr. (Mrs) Rehana Parveen, Thesis title- Study on fault detection and protection in offshore wind farm connected to onshore grid
Supervised by: Dr. Soumya Ranjan Mohanty and Dr. Nand Kishor
- (v) Dr. Vijay P Singh, Thesis title- Load frequency control in power system in perspective to smart grid operation
Supervised by: Dr. Paulson Samuel and Dr. Nand Kishor
- (vi) Dr. Modem Narayan, Thesis title- Study power quality in hybrid distributed generation system.
Supervised by: Dr. Soumya Ranjan Mohanty and Dr. Nand Kishor
- (vii) Dr. Sulabh Sachan, Thesis title- Electric vehicle integration management in distributed network.
Supervised by: Dr. Nand Kishor

In progress: 4 numbers

- (i) Mr. Lalit Kumar, Research area- Wide area monitoring and control for low frequency oscillations, Registered in July 2014, Supervised by: Dr. Nand Kishor, Status: Thesis submitted
- (ii) Mr. Omkar Yadav, Research area- Control design for multi terminal DC grid operation, Registered in Jan 2015, Supervised by: Dr. Richa Negi and Dr. Nand Kishor
- (iii) Ms. Shweta, Research area- Smart grid operation with wide area information, Registered in Jan 2016, Supervised by: Dr. Nand Kishor and Dr. S. R. Mohanty
- (iv) Ms. Rupal Singh, Research area- Islanding detection hybrid DG system in real time Registered in Jan 2016, Supervised by: Dr. S. R. Mohanty and Dr. Nand Kishor

4.4 Details of Contribution made to Laboratory Development Activities

- *At RBIT-*

New Experiments Developed:

Complete set-up of Instrumentation and Control lab.

Experiments introduced:

- a. Open and closed loop control of DC motor
- b. Servo-motor positioning control
- c. Stepper motor control- fed with different pulses
- d. Programmable Logic controller
- e. Temperature and light measurement

- At MNNIT (Allahabad), India-

Experiments/Simulation test: Using Virtual Instrumentation/MTALAB software for undergraduate and post-graduate students for the above teaching courses.

5. Administrative Experience: At MNNIT (Allahabad), India

- (i) Convener, Department Doctoral Programme Committee, Since August 2015 – August 2017

Responsibility: Selection and admission process of PhD students, their advising on course selection, assist in semester progress evaluation, notification on deliver of Open-seminar towards Thesis submission and finally PhD viva-voce (Examination).

- (ii) Faculty in charge (Electric Supply Works and Maintenance), April 2014 - Dec 2015

Responsibility: Ensure power supply in the Institute campus in case of power cut/failure, Routine related maintenance works, etc.

- (iii) Warden-in-charge (PG Boys Hostel), Nov. 2010- August 2012

Responsibility: Ensure comfortable accommodation (stay) in the hostel, student’s mess (food) and co-curricular activities.

- (iv) Faculty-in-charge (Central Library), Oct 2007- Nov. 2010 and 30 June 2016 – 30 June 2017

Responsibility: Ensure time books purchase on recommendation of Staff, Organizing Books Exhibition, and related activities.

- (v) Outreach Institute Activity: Appointed by the Institute as Expert: on advising the Technical

Specification preparation, committee for set-up of 5kW/10 kW PV solar plant at 250 police stations of Uttar Pradesh state in India.

- (vi) Convener, Department Post-graduate Committee, August 2009-August 2011

Responsibility: Selection and admission process of PhD & Master students, their advising on course selection, assist in semester progress evaluation, notification on deliver of Open-seminar towards Thesis submission and Thesis examination.

- (vii) Member- Department Post-Graduate Committee, Oct 2006- Aug 2012

- (viii) Coordinator- B. Tech Final Year Project, July 2007-May 2011

6. Experience in organizing Conferences/Work/shops/Short-term Courses: At MNNIT (Allahabad), India

National/International Conference

Sl. No.	In the Capacity of	Title	Period		Organised at	Sponsored by	National / International
			From	To			

1	Role: Program Secretary, Responsible for final selection of papers, distribution sessions, keynote lectures into program	International Conference of Power Control, Embedded and Systems (ICPCES-2014)	Nov. 13, 2014	Nov. 15, 2014	MNNIT	IEEE Uttar Pradesh Section	International
2	Role: Technical Committee Chair, Responsible for Call for papers, review process, decision on paper, distribution sessions, keynote lectures into program	Student's Conference of Engineering & Sciences 2014 (SCES-2014),	May 28, 2014	May 30, 2014	MNNIT	IEEE Uttar Pradesh Section	National
3	Role: Technical Program Chair, Responsible for Call for papers, review process, decision on paper, distribution sessions, keynote lectures into program	Student's Conference of Engineering & Sciences 2015 (SCES 2015)	Nov. 6, 2015	Nov. 8, 2015	MNNIT	IEEE Uttar Pradesh Section	National
4	Role: Technical Program Chair, Responsible for Call for papers, review process, decision on paper, distribution sessions, keynote lectures into program	International Conference of Power Control, Embedded and Systems (ICPCES-2017)	March 9, 2017	March 11, 2017	MNNIT	IEEE Uttar Pradesh Section	International

Workshop/Faculty Development Programme/Short term courses (min 05 working days duration)-

Sl. No.	In the Capacity of	Title	Period		Organised at	Sponsored by	Amount [in lakhs] 1 lakhs = 0.1 million
			From	To			
1	Role: Organizing	National Workshop	July	July	MNNIT	IEEE Joint	Indian

	Secretary	on Networked and Embedded Control (NECES-2016)	15, 2017	16, 2017		Societies Chapter of Industrial Electronics, Power Electronics & Control (Under IEEE UP Section & TEQIP-II MNNIT)	Rs. 3.45
2	Role: Coordinator (Convener)	Short Term Course on “Distributed Generation Resources and its Integration Impact on Grid” (DGSIG-2015)	Jan. 28, 2015	Feb. 1, 2015	MNNIT	Self-financed	Rs. 0.51
3	Role: Coordinator (Convener)	Summer internship program in Electrical Engineering (SIPEE-2017),	June 21, 2016	July 16, 2016	MNNIT	IEEE UP Section	Rs. 3.0
4	Role: Coordinator (Convener)	Summer internship program in Electrical Engineering (SIPEE-2017),	June 19, 2017	July 14, 2017	MNNIT	IEEE UP Section	Rs. 2.88

National Programs like GIAN Course (<http://www.gian.iitkgp.ac.in/>) as course coordinator

Sl. No.	In the Capacity of	Name of Program	Period		Organised at	Sponsored by
			From	To		
1	Course Coordinator: Dr. Nand Kishor Foreign Speaker: Prof. Kjetil Uhlen, NTNU, Norway	Title: Smart power grid- operation and control: Use of PMUs	November 6, 2017	November 10, 2017	MNNIT Allahabad India	GIAN, MHRD, New Delhi
2	Course Coordinators: Dr. Richa Negi & Dr. Nand Kishor Foreign Speaker: Prof. Lennart Soder, KTH University, Sweden	Title: Integration of High Penetration of Solar and Wind Power in Power Systems: Experiences and Challenges	November 13, 2017	November 17, 2017	MNNIT Allahabad India	GIAN, MHRD, New Delhi

7. Areas of Research interest

- Applications of artificial intelligence (AI) in power system, mainly in power plant control
 - Identification, modeling and control approaches / algorithms
 - Integration of conventional control theories with artificial intelligence techniques / algorithms
- Renewable energy resources: Integration to form hybrid system, Their operation, control & protection
- Smart grid technologies: Wide area monitoring, Electric vehicle integration management
- Wind farm integration into grid: Its impact and damping of oscillations

8. Research Project: (A) *At MNNIT (Allahabad), India*

(i) Title: Development of Fuzzy Model for Thermosiphonic based Solar Water Heating System

Funded by:- Motilal Nehru National Institute of Technology Allahabad, India

Status: Completed, Period: Sept.2008-Sept 2009, Amount: Indian Rs. 0.075 Millions

(ii) Title: Intelligent control of helicopter/twin rotor control system using backstepping technique

Funded by:- Department of Science and Technology, New Delhi

Principal Investigator (PI): Dr. Shubhi Purwar, Co-PI: Dr. Nand Kishor

Status: Completed, Period: Sept.2009-Sept 2012, Amount: Indian Rs. 2.380 Millions

(iii) Title: Embedded power quality disturbance detection system for the distributed generation source connected grids

Funded by:- Department of Science and Technology, New Delhi

PI: Dr. Soumya Ranjan Mohanty, Co-PI: Dr. Nand Kishor

Status: On-going, Period: April 2015 for 3 years, Amount: Indian Rs. 3.265 Millions

(iv) Title: Operation of the Smart Grid with Wide Area Information (OperaGrid)

Funding Scheme:- DST-RCN Call for Joint Research Proposals- 2014 (Indo-Norway Joint Proposal call)

PI: Dr. Nand Kishor, Co-PI: Dr. Soumya Ranjan Mohanty

Status: On-going, Period: May 2015 for 3 years, Amount: Indian Rs. 1.812 Millions

(v) Title: Efficiency increase of III-V multijunction solar cells and modules with sunlight concentrators for photovoltaic installations

Funding scheme: DST- RMES 2016 (Indo-Russia Joint Proposal call)

Lead PI & Institution: Dr. Nand Kishor, MNNIT Allahabad, Co-PI: Dr. Richa Negi

Other Participants: Dr. Mihir Kumar Das, IIT Bhubaneswar (IIT BBS)

Total cost: Indian Rs. 6.9 Millions (MNOK 0.8625); MNNIT Allahabad share: Indian Rs. 3.7 Millions, IIT BBS: Indian Rs. 3.2 Millions

Russian side: IOFFE Physical-Technical Institute, Russia, Total cost: 15 Million Rubbles

Status: Sanctioned in February 2018, Period: 2 years (Supporting document attached-First page only)

(B) *At University of Agder, Grimstad, Norway*

(vi) Title of the Project: Integrated Energy System Management in Smart Grid Environment

Funding: Faculty of Engineering Sciences

Status: Ongoing, Period: May 2018 for 2 years, Amount: 2.1 Million NOK = INR 16.8 Millions

9. Details of participation as invited Participants to National / International Conference(s)

- Participated as author to present papers at IEEE First International Colloquium on Smart Grid Metroogy (SMAGRIMET 2018) Split, Croatia, 25-27 April 2018.
- Participated as author to present papers at IEEE PowerTech 2017 Conference, Manchester, UK, 18-22 June 2017
- Participated as author to present papers at IEEE ISGT ASIA 2013 Conference, Bangalore, India, 10-13 November 2013.
- Participated as author to present papers at IEEE PowerTech 2013 Conference, Grenoble, France, 16-20 June 2013.
- Participated as author to present papers at IEEE Power and Energy Conference, IEEE PECon 2010, Malaysia, 29 Nov – 1 Dec. 2010.
- Participated as author to present paper at IEEE Innovative Smart Grid Technologies, IEEE ISGT 2010 (Europe), Sweden, 11-13 October 2010.
- Participated as author to present papers and act as session chair at IEEE Congress on Evolutionary Computation, Singapore, Sept. 25-28, 2007.
- Participated as author to present a paper at IEEE Power India Conference, New Delhi, India. April 10-12, 2006.
- Participated as author to present a paper at International Conference on Computer applications in Electrical Engineering Recent Advances, Department of Electrical. Engineering, Indian Institute of Technology, Roorkee, India. Sept. 29- Oct. 1 2005.
- Participated as author to present a paper at National Power Systems Conference, Department of Electrical Engineering Indian Institute of Technology, Madras, Chennai, India. Dec. 27-30, 2004.
- Participated as author to present a paper at 27th National Systems Conference, Department of Electrical. Engineering, Indian Institute of Technology, Kharagpur, India. Dec. 17-19, 2003.

10. Work-shop Attended

- “The Nordic Workshop in Power System Protection and Control” 23rd May 2017, NTNU, Trondheim, Norway.

- Mini-conference on “Monitoring and Control of Power System Dynamics using Phasor Measurement Technology” organized under The REAL-SMART project, funded by the European Commission Marie Curie FP7 IAPP, 16th November, 2012, ABB Corporate Research, Baden-Dättwil, Switzerland.
- Two-day IEEE workshop on “Applications of power electronics to electric utilities & motor control”, March 29-30, 2005, organized by Deptt. of Electrical Engineering, Indian Institute of Technology, Delhi, India.
- Two-day IEEE workshop on “Power system of the 21st century- various issues & possible solution”, November 6-7, 2004, organized by Deptt. of Electrical Engineering, Indian Institute of Technology, Delhi, India.
- “Workshop on Efficient use of Boilers” organized by National Institute –Industry Forum for Energy and Indian Boilers Manufacturers Association on 9th January 1999 held at Indore, India.

11. Details of Summer/Winter School Attended

Title: Power Electronic Applications, *Organized by:* NERIST, Nirjuli-791109, India.

Period: 8th July to 18th July 2002.

12. Invited Talk Delivered (Outside India):

- Title: Hybrid Distributed Generation System- Disturbance Detection and Frequency Regulation; 30th May 2011, Division of Electric Power Systems, School of Electrical Engineering, KTH University, Stockholm, Sweden. Invited by Dr. Luigi Venfreti.
- Title: Future Electric Power System: Prospects and Challenges; 8th November 2011, School of Electrical and Mechanical Engineering, Reykjavik University, Iceland. Invited by Guðrún Sævarsdóttir, Dean, School of Science and Engineering.
- Series of lectures on signal processing applications in power system, From 18th August – 22nd August 2014, Electric Power Research Group, Dublin Institute of Technology, Ireland. Invited as part of Science Foundation Ireland - India consortium. Invited by Dr. Malabika Basu.
- Title: Modeling and Dynamic Behaviour of Hydropower Plants-Wide area Measurement Based, 19th May 2017, ETSI Telecomunicación, Universidad Politécnica de Madrid (ETSIT-UPM), Madrid, Spain. Invited by Dr. Jesus Fraile Ardanuy.

13. Research Collaborations:

- Dr. Marcelo Gradella Villalva, Universidade Estadual de Campinas University of Campinas, Brazil.
Research problem: PV modeling, characterization, power in a single phase study, etc.
Form of collaboration: Joint authorship in papers.
- Dr. Jesús Fraile Ardanuy, Escuela Técnica Superior de Ingenieros de Telecomunicación, Universidad Politécnica de Madrid, Spain

Research problem: Variable speed hydropower operation, control design

Form of collaboration: Joint authorship in papers and in edition of books.

- Dr. Malabika Basu, Dublin Institute of Technology, Ireland
Research problem: Application of signal processing and support vector machines for fault diagnosis
Form of collaboration: Invitation for Expert lectures.
- Dr. Kjetil Uhlen, NTNU, Norway
Research problem: Monitoring of wide area low frequency oscillations and controller design
Form of collaboration: Joint authorship in papers and Research project.
- Dr. Anurag Srivastava, Washington State University
Research problem: Integrated renewable energy systems
Form of collaboration: Joint Editorialship in IEEE Transactions on Industrial Informatics (Special Section) and in submission of research project.

14. Research Publications:

List of publications in International Journals/ conferences: Attachment A

Book chapters-

- Shashi Kant Pandey, Soumya R. Mohanty, ***Nand Kishor***, J. P. S Catalão, Chapter- "An advanced LMI-based-LQR design for load frequency control of an autonomous hybrid generation system", in: Technological Innovation for the Internet of Things, Ed. L.M. Camarinha-Matos, SPRINGER, Heidelberg, Germany, April 2013.
- Deepshikha Agarwal, ***Nand Kishor***, Chapter- "Application of Wireless Sensor System for monitoring of offshore wind-farms", in: Book- Wireless Sensor Systems for Extreme Environments: Space, Underwater, Underground and Industrial, Editors: Habib F. Rashvand, Ali Abedi, Publisher- Wiley. ISBN: 978-1-119-12646-1.

15. Award / Grant obtained / offered

- Masters student won POSOCO award 2017 under Masters Thesis category. <http://posoco.in/ppsa>, Secured at 3rd position in Top 10.
- Masters student won POSOCO award 2016 under Masters Thesis category. <http://posoco.in/ppsa>
- Marie Curie Experienced Researcher by the REAL-SMART Consortium, which is a Marie Curie FP7 Industry Academia Pathways and Partnerships project (IAPP) at Aalto University.

Amount: Euro 4600 per month

- Institute Fellowship sanctioned by Ministry of Human Resource and Development, India.
Amount: Indian Rupees (IRs). 10, 000/ - per month plus IRs. 20, 000 per year as contingency

- IEEE Computational Intelligence Society travel grant to attend the “Second Latin-American Summer School on Computational Intelligence”, EVIC 2005 at Universidad de Chile, Santiago, Chile, Dec 14-16, 2005.

Amount: USD 500.00

- IEEE Computational Intelligence Society Young researcher grant offered for 2nd International Symposium on Evolving Fuzzy Systems, Sept. 7-9, 2006, Lake District.

Amount: Approx. BP. 390 (full registration fee, accommodation and local travel)

- Department of Science and Technology Young Scientist travel grant to attend and present paper in IEEE Congress on Evolutionary Computation, Sept. 25-28, 2007, Singapore.

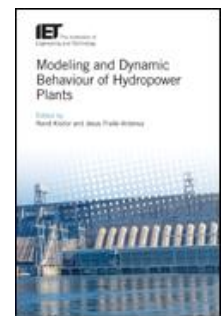
Amount: IRs. 10,000/- (Approximately)

- Centre for Cooperation in Science & Technology among Developing Societies travel grant to attend and present paper in IEEE Congress on Evolutionary Computation, Sept. 25-28, 2007, Singapore.

Amount: IRs. 10,000/-

16. **Book Published:**

1. Book title- Modeling and Dynamic Behaviour of Hydropower Plants,
Editors: Dr. Nand Kishor and Dr. Jesus Fraile-Ardanuy,
Publisher: The Institution of Engineering and Technology (IET), UK.
ISBN 978-1-78561-195-7.



<http://www.theiet.org/resources/books/pow-en/hydroplants.cfm>

2. Book title- Smart Grid Management with Electric Vehicle Integration- An ICT Approach
Editors: Dr. Nand Kishor and Dr. Jesus Fraile-Ardanuy
Call for chapters publicized.
To be Published by: The Institution of Engineering and Technology (IET), UK.
Date of Publication: February 2019

17. **Editorial Experience:**

- (i) Wind Energy, Hindwai Publisher, (2012-2016)
- (ii) Guest Editor, IEEE Transactions on Industrial Informatics, Special Section on “Cloud Computing in Smart Grid Operation and Control”. Published in 2018.
- (iii) Associate Editor, IET Renewable Power Generation, UK. (January 2018- for 3 years).
- (iv) Associate Editor, IET Generation, Transmission & Distribution, UK. (January 2018- for 3 years).

18. **Technical Reviews for Journals / Conferences/Books/ Research Proposal**

18.1 *Conferences -*

- International Conference on Computational Intelligence for Modelling, Automation and Control, CIMCA06, 28th Nov.-1st Dec. 2006, Sydney, Australia.
- International Conference on Computer applications in Electrical Engineering Recent Advances, CERA-05, Roorkee, India. Sept. 29- Oct. 1 2005.
- American Control Conference 2007, 2009, 2011, 2012
- IEEE PECon 2010, 2011, 2012
- IEEE CDC 2011, 2012, 2013

18.2 Journals –

Regular reviewer for -

- IEEE Transactions on Industrial Applications
- IEEE Transactions of Automatic Control
- IEEE Transactions on Industrial Electronics
- IEEE Transactions on Energy Conversion
- IEEE Transactions on Smart Grid
- IEEE Transactions on Sustainable Energy
- IEEE Sensors Journal
- IEEE Transactions on Power System
- IET Renewable Power Generation
- Applied Soft Computing, Elsevier Science
- International Journal of Electrical Power and Energy Systems, Elsevier Science
- International Journal of Hydrogen Energy, Elsevier Science
- Journal of Solar Energy, Elsevier Science

18.3 Books-

Modelling and Controlling of Hydropower Stations, Authors: German Munoz-Hernandez, Sa'ad Mansoor and Dewi Jones, Springer publication.

Modelling and Simulation of Small Scale Hydro Generation Systems: The State Space Approach, Author: René Wamkeue, Publisher: IET, UK.

18.4 Research Proposal-

Evaluation of the Alberta Ingenuity nanoWorks Program Application of Dr. Wayne Heibert

19. Recognitions:

- Biography included in Marquis Who's who in Science and Engineering 2006-2007.
- Biography included in Marquis Who's Who in World, 2007 & 2009.
- Invited as an expert by Elsevier Science, UK to create Scirus Topic Page on Hydro power plant modeling and control. http://topics.scirus.com/Hydro_power_plant_modeling_and_control.html

- Biography included in “2000 Outstanding Intellectuals of the 21st Century” published by International Biographical Centre, Cambridge, England.

20. Professional Affiliation

- IEEE Senior Member (2012)
- IEEE Industrial Electronics society
- IEEE Power and Energy Society

21. List of referees

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