

## ABOUT IEEE

### IEEE Mission & Vision

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. Below, you can find IEEE's mission and vision statements.

### Vision statement

IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

### Membership Benefits

IEEE membership offers access to technical innovation, cutting edge information, networking opportunities, and exclusive member benefits. Members support IEEE's mission to advance technology for humanity and the profession, while memberships build a platform to introduce careers in technology to students around the world.

### Mission statement

IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity.

### About IEEE

IEEE and its members inspire a global community to innovate for a better tomorrow through highly cited publications, conferences, technology standards, and professional and educational activities. IEEE is the trusted voice for engineering, computing, and technology information around the globe.

## Message Board

It is a great pleasure that IEEE-Bhubaneswar Sub-section is bringing out the 1st issue of the Newsletter. IEEE-Bhubaneswar Sub-section has actively organized several technical programs, conferences, lecture series, etc. during a short span of time of one year which is immensely benefitted to academicians, researchers and students. The planning of bringing out a Newsletter with the brief discussion of the activities covered by IEEE-Bhubaneswar sub-section will be helpful in this regard.

IEEE Bhubaneswar Sub-section has already completed one year fruitfully, and in the coming years also it will carry out several productive programs with great motivation and more efforts will be added towards the welfare of the IEEE community in Odisha State.

Finally I extend my heartiest congratulations for the 1st issue of the Newsletter.

With Best Wishes,

*Prof. (Dr.) P. K. Dash, Chair, IEEE Bhubaneswar Sub-section*

I am very happy to know that IEEE Bhubaneswar sub-section is bringing out the first issue of its Newsletter. It is a great moment for all of us involved in the various activities of IEEE Bhubaneswar. The Newsletter will provide a platform not only to exchange innovative ideas but also to share the activities of IEEE Bhubaneswar with larger IEEE community. I take this opportunity to congratulate the editorial team of the Newsletter and wish them great success.

*Prof. (Dr.) G. Panda, Vice Chair, IEEE Bhubaneswar Sub-section*

I am extremely happy that IEEE Bhubaneswar sub-section is bringing the 1st issue of the Newsletter. Definitely, the newsletter will be helpful in bridging gaps between the IEEE community in Odisha and the IEEE Bhubaneswar sub-section. This is to mention that the sub-section has completed one year and we conducted good number of activities during January-December 2016. However, we will look forward to involve IEEE community at large and conduct more activities to outreach the society and, make the sub-section as one of the leading one in this country. I wish all the best for the 1st issue of the Newsletter and hope this will create synergy to bring the IEEE Bhubaneswar sub-section to a newer height.

*Prof. (Dr.) S. R. Samantray, Secretary, IEEE Bhubaneswar Sub-section*

I am glad that the IEEE Bhubaneswar sub-section has conducted a number of programs in a short time and is bringing out its first Newsletter. The section has already the PES chapter and the Device chapter functional. I am sure that with every one's cooperation the subsection will soon grow to claim the Section status. The main task would be to bring all colleges in the state under IEEE fold and conduct as many events as possible.

*Prof. (Dr.) A. K. Tripathy, Executive Member, IEEE Bhubaneswar Sub-section*

## ABOUT EC MEMBERS Year - 2016



### Prof. (Dr.) P. K. Dash, Director Multi-Disciplinary Research Cell, SOA University, Bhubaneswar

Prof. P. K. Dash is currently the Director (Research & Consultancy) at the Siksha 'O' Anusandhan University, Bhubaneswar, Odisha, India. He has received his B. E. and M. E. degrees in Electrical Engineering from Indian Institute of Science, Bangalore, his Ph. D. in Electrical Engineering at the National Institute of Technology, Rourkela, and Post-Doctoral Education at the University of Calgary, Canada. He has been awarded a D.Sc. (Doctorate of Science) degree in Applied Artificial Intelligence from the Utkal University, India in 2003.

Earlier Prof. Dash worked as a Professor at the National Institute of Technology, Rourkela and during his stay of nearly 3 decades at NIT, Rourkela he visited the University of Washington, Seattle, Virginia Polytechnic and State University, Blacksburg, University of Manitoba, University of New Brunswick, Multimedia University –Malaysia, National University of Singapore, Memorial University, Canada as a Visiting Professor. In 1982 he was a visiting research engineer with ABB, Switzerland and in 1993, 1994, 1996-97 a Visiting Professor at the National University of Singapore, and in 2001-2003 a Professor at the University of Telecom, Kuala Lumpur, Malaysia.

To-date he has published 500 research papers in reputed International Journal & conference and has guided more than 70 Ph. D.s in Engineering and Computer Science.

He is a Fellow of National Academy of Engineering. Also he served as the Director (Academics & Research), and Director (PG & Research) of the Silicon Institute of Technology, Bhubaneswar, and Director (Academic & Research) of College of Engineering Bhubaneswar, Orissa, India. He also acted as the Vice-Chancellor of Siksha 'O' Anusandhan University, Bhubaneswar, Orissa.

For his research contributions Professor Dash has been awarded the Samanta Chandrasekhar Award in Engineering in 1990 by the Govt. of Orissa and the Orissa Bigyan Academy. He has received the prestigious Biju Patnaik Award for Excellency in Scientific Research for the year 2010 by Odisha Bigyan Academy, Govt. of Odisha.

Prof. Dash has been recognized as one of the top 10 active researchers in the area of Energy as well as in Engineering in India for his research contribution during 2009–2014 by the Department of Science and Technology, India.

### Prof. (Dr.) Ganapati Panda, Ex-Deputy Director, IIT, Bhubaneswar

Professor Ganapati Panda is currently working as a visiting professor at IIT, Bhubaneswar . He also served as Dean (Administration) at National Institute of Technology, Rourkela. He was the founder Head of school of Electrical Sciences at IIT Bhubaneswar and NIT Rourkela. He also served as Director of National Institute of Technology, Jamshedpur. He acted as Co-ordinator, World Bank Project at National Institute of Technology, Rourkela. He has served 41 years in teaching and he did his Post-Doctoral research work at the University of Edinburgh, UK and Ph. D. from IIT, Kharagpur in the area of Electronics and Communication Engineering. He has already guided 38 Ph.Ds in the field of Signal Processing, Communication and Soft-computing and has published more than 365 research papers in various International and Indian Journals and Conferences. He has contributed to research projects from AICTE, MHRD, ISRO, DRDO, DST and British Council, UK. He has also edited two books in the area of DSP. He was nominated as the Fellow of the National Academy of Engineering, India (FNAE) and Fellow of National Academy of Science, India (FNASc) for research contribution to signal processing and telecommunication. Dr. Panda has been selected for the Biju Patnaik award for Scientific Excellence and has received Samanta Chandra Sekhar award from the department of Science and Technology, Govt. of Orissa. He is a Senior Member of IEEE, Fellow of IET, IETE, IE, Life Member of CSI, ISTE and System Society. His research interests are Digital Signal Processing, Digital Communication, Soft Computing, Intelligent Instrumentation, Evolutionary Computing, Computational Finance, Sensor Networks and Distributed Signal Processing.



Prof.(Dr.) Subharansu Sekhar Samantaray, Asso. Profssor , IIT BHubaneswar



Dr S. R. Samantaray received a B Tech.in electrical engineering from UCE, Burla, India, in 1999 and a Ph D.in power system engineering from the Department of Electronics and Communication Engineering, National Institute of Technology, Rourkela, India, in 2007. Dr Samantaray holds the position of Associate Professor in the School of Electrical Sciences ,Indian Institute of Technology Bhubaneswar, and India. He visited the Department of

Electrical and Computer Engineering, McGill University, Montréal, Canada as a Post-Doctoral-Research Fellow and Visiting Professor . His major research interests include intelligent protection for transmission systems including (FACTs) and micro grid protection with distributed generation and dynamic security assessment in large power networks. He is the recipient of the 2007 Orissa Bigyan Academy Young Scientists Award, the 2008 Indian National Academy of Engineering Best Ph. D. Thesis Award ,the 2009 Institute of Engineers India (Young Engineers Award), the 2010 Samanta Chandra Sekhar Award and the 2012 IEEE PES Technical Committee Prize Paper Award , Excellence in Reviewing Award -2013, Elsevier Science and NASI SCOPUS- Young Scientist Award 2015. Dr. Samantaray is an Editor of IEEE Transactions on Smart Grid, Associate Editor of IET, Generation, Transmission & Distribution, Canadian Journal of Electrical and Computer Engineering and Electric Power Components and Systems .He is the member of National Academy of Sciences India.

Prof. A. K. Tripathy, Professor, SIT, Bhubaneswar

Born on April 15th, 1948 Shri. A.K.Tripathy graduated from NIT Rourkela in Electrical Engineering and did his post graduation from I.I.Sc Bangalore in Power System in 1971. He worked as Lecturer at NIT Rourkela and has served SAIL and BHEL. He was affianced as Professor and Advisor Research in the Silicon Institute of Technology at Bhubaneswar ,Odisha for many years. At present Sri Tripathy is Chief Technical Advisor to PRDCL Bhubaneswar. He is also a member of Board of CESU. He was awarded BHEL's Anusandhan award and CBIP's P.M.Ahluwalia award CBIP's P.M.Ahluwalia award for outstanding contribution to Power Sector in India, S. P. Hatté gold medal from Institution of Industrial Engineering for standing first at all India level in its graduate examinations and the Viswvaraya award. He was the Board member of KPCL, CEA and member of Governing body of BEE and NPTI. He was member of advisory board of Power grid Corporation Ltd . Mr Tripathy was chairman of ETDC . He is a Fellow of Indian National Academy of Engineering, a fellow of Institution of Engineers India, and a senior member of IEEE. He was the Chairman of Bangalore section of IEEE from 2006 to 2008. He is a member of State Advisory Council of Orissa Regulatory Commission and an adjunct professor at NIT Rourkela. Sri Tripathy is a member of steering committee of National mission on power Electronics (NAMPET) of Govt. of India. His areas of research include Power system analysis, Consultancy, design of HVDC, UHV, FACTS and Power Electronics application.



Prof. (Dr.) R. V. Rajakumar, Director, IIT, Bhubaneswar



Hailing from Chinnapuram (Machilipatnam ) Prof Ratnam V Rajakumar received his BE degree in 1980 from Andhra University, Visakhapatnam, MTech and PhD degrees from IIT Kharagpur, in Electronics and Communication Engineering and is presently serving as the Director of IIT Bhubaneswar He served as the first Vice-chancellor of Rajiv Gandhi University of Knowledge Technologies (RGUKT), Hyderabad, Dean of Academic Affairs of IIT Kharagpur, the Chairman of the G S Sanyal School of Telecommunication and headed the Vodafone Essar - IIT Center of Excellence in Telecommunications.

He was deployed in the University of Michigan, Ann Arbor and contributed to INDEST Consortium. His areas of research interest include Digital Signal Processing, Wireless Communications, Detection and Estimation and VLSI systems for Communications. He has over 160 research publications in reputed international journals and conferences and has supervised 140 students. Few of his laurets are designing a sonar homing system for the first ever torpedo developed by India, designing communication systems for defense systems and development of Cognitive Radio by DRDO, receiving the BOYS-CAST research grant from the Department of Science and Technology, Government of India, the Baroda Chapter national award of ISTE and the best student paper award in the 1984 IEEE Region 10 (Asia & Pacific). He accompanied hon'ble President of India on his state visit to China in 2016 for the academic delegation.

Dr. Ajit Kumar Panda, Professor, NIST, Berhampur

Dr Ajit Kumar Panda is working as a Professor in National Institute of Science and Technology (NIST), Berhampur .He is a Distinguished Lecturer of IEEE Electron Device Society and is an IEEE Senior Member .He is the Faculty Advisor of IEEE ED NIST Students Chapter. He works on Semiconductor Devices focusing (on HEMT MOS/HEMT) and Circuits focusing (on Sensors Interface Circuit Design for use in IoT and glitch minimization).



Dr. Debi Prosad Dogra, Asst. Professor, IIT, Bhubaneswar



Dr. Debi Prosad Dogra obtained Ph D. from IIT Kharagpur in 2012, M Tech. from IIT Kanpur in 2003, and B Tech. from Haldia Institute of Technology in 2001, all in Computer Science and Engineering. After finishing MTech., he joined Haldia Institute of Technology as a faculty member in the Department of Computer Sc. & Engineering where he taught UG level- courses for three years during 2003-2006 .

He later joined ETRI, South Korea as a researcher in the Multimedia Research Team for six months. Dr. Dogra was with the Advanced Technology Group of Samsung Research Institute Noida for a period of two years (2011 -2013). In SRI Noida, Dr. Dogra was leading a research team with primary focus on designing applications in the domains of healthcare automation, gesture recognition, and augmented reality with the help of video object tracking, image segmentation, and visual surveillance. He has filed six patents during his research at SRI Noida and two of his patents have already been granted .

Presently, he is an Assistant Professor of Computer Science and Engineering in the School of Electrical Sciences, IIT Bhubaneswar. He is leading various R &D and Consultancy projects funded by various national and international agencies. Dr. Dogra has published more than 30 international journal and conference papers in the areas of Human Computer Interface, Computer Vision, Image Segmentation, and Healthcare Automation. In 2016, Dr. Dogra has organized the IEEE Students Colloquium under the leadership of IEEE.

Dr. Jayashree Ratnam, Professor, ITER, Bhubaneswar

Jayashree Ratnam is currently an Associate Professor at ITER, SOA University at Bhubaneswar, India since (Jan 2016). She served as a faculty member at IIIT Hyderabad from 2011 to 2015. Jayashree obtained her Masters and Doctoral degrees in Lightwave Communication Engg. from IIT Kharagpur, India and Bachelor's degree from JNTU College of Engg., Hyderabad, India .



She has about 12 research publications including an IEEE best paper award for her paper presented in "Advanced Networks and Telecommunication Systems"(ANTS) in 2008 at IIT Bombay. She was a Session Organizer and Chair for Wireless Vitae 2015, speaker in pre - conference tutorials workshops/ and coordinated several short term- courses. She has been an active reviewer for several journals/conferences and a Technical Program Committee member for SPCOM and ANTS. Her research interests include next generation optical access WDMA (OFDMA/ OCDMA/ Hybrid/ based- ) networks and Optical Wireless- Convergence .



Dr. Badrinarayana Sahoo, SOA University Bhubaneswar Treasurer, IEEE Bhubaneswar Sub-Section

Dr. Badrinarayana Sahoo is currently working as an Associate Professor in SOA University. He has published many articles in International journals and conferences. His research area includes signal processing and pattern recognition.

Dr. Tapas Kumar Panigrahi, Asso. Professor, IIT, Bhubaneswar

Dr. Tapas Kumar Panigrahi is presently working as a faculty in EE department of IIT Bhubaneswar. He has more than 20 years of teaching experience. Prof. Panigrahi's teaching interests lie in the fields of Electrical Machine, Energy Conversion Device, Network Theory, Control System, Power System. His research interests are in the domains of Distributed Generation, Micro grid-, Islanding detection, Frequency & phase estimation, AGC. He has published over 13 research articles. He is a Senior Member of IEEE. He is a Dale Carnegie certified professional on "High Impact Teaching skills".



Dr. Sujata Chakravarty, Professor, Orissa Engineering College, Bhubaneswar



Dr. Sujata Chakravarty, a Senior Member, IEEE is working as Professor and Head, Dept. of CSE/IT in Orissa Engineering College, Bhubaneswar. She has published 4 book chapters and about 60 articles in many International journals and conferences. She is a reviewer of many International journals like Elsevier, Inderscience, International Journal of Intelligent and Fuzzy Systems and IEEE conferences. Her research area includes multidisciplinary fields like Application of Computational Intelligence and Evolutionary Computing Techniques in the field of Financial Engineering like Stock market, Energy market, Currency exchange market etc., Bio medical- data classification, Intrusion Detection System in Computer Network.

Dr. R. K. Jena, CET, Bhubaneswar



Presently working as Associate Professor in the Department of Electrical Engineering, CET, Bhubaneswar with Additional charge assigned as Secretary, Odisha Joint Entrance Examination, Odisha.

Presently working in the area of Power System Engineering, Focusing on Power Quality Issues.

Dr. L. N. Tripathy, IGIT, Saranga

Dr. Lokanath Tripathy currently serving as Associate Professor, in Electrical Engineering, IGIT, Sarang has completed his PhD from IIT Bhubaneswar in Power System Protection and M.Tech from IISc. Bangalore in Computer Aided Power System Analysis and B.Tech from IGIT, Sarang. He has 17 years of teaching experience and has received the Best Engineer Award from Reliance Filament Ltd. (Member Reliance Group), Dadra Nagar Haveli, India, in year 1996 and the Prestigious POSOCO-2016 Award for Doctoral Category from Power System Operation Corporation, Government of India. He is an executive member of IEEE, Life member of ISTE New Delhi and IE.



ACTIVITIES

Student Colloquium 2016

Each year, IEEE Bhubaneswar Sub-Section is pleased to organize and sponsor an interdisciplinary student conference called the "Student Colloquium" that provides a global community to innovate for a better tomorrow and gets all learned people under one roof and enhances the skill of students.

First Student Colloquium hosted by IEEE Bhubaneswar Sub-Section and IIT, Bhubaneswar on 22nd October 2016 at IIT, Bhubaneswar



**First Prize**



**Second Prize**



### IEEE Bhubaneswar Sub-Section Executive Committee Meetings

- **MEETING-I – IEEE Bhubaneswar Sub-Section Executive Committee Meeting held on 23<sup>rd</sup> January 2016 at IIT Bhubaneswar.**
- **MEETING-II – IEEE Bhubaneswar Sub-Section Executive Committee Meeting held on 6<sup>th</sup> May 2016 2016 at SOA University Bhubaneswar.**
- **MEETING-III – IEEE Bhubaneswar Sub-Section Executive Committee Meeting held on 8<sup>th</sup> July 2016 at SOA University Bhubaneswar.**
- **MEETING-IV – IEEE Bhubaneswar Sub-Section Executive Committee Meeting held on 10<sup>th</sup> September 2016 at SOA University Bhubaneswar.**

- MEETING-V – IEEE Bhubaneswar Sub-Section Executive Committee Meeting held on 19<sup>th</sup> November 2016 at NIST Berhampur.

## Lecturers Series

### LECTURE I: EVOLUTION OF MOBILE COMMUNICATIONS

With nearly 7 Billion subscribers and the proliferation of smart phones and social media, the impact of mobile wireless technology is both universal and profound. This talk is a personal perspective of the evolution of mobile technology (1, 2, 3 and 4G) and the underlying competitive and commercial factors that shaped its evolution. A non-linear story with its share of good and not-so-good turns. The talk will also outline what is ahead in 5G the next generation mobile technology.

#### Information About Speaker:

Dr. Paulraj is an Emeritus Professor at Stanford University. He graduated with a Ph.D. from the Indian Institute of Technology, New Delhi, India, in 1973. After 25 years with the Indian Navy, Paulraj joined Stanford University in 1992. He proposed the concept of spatial multiplexing /MIMO in 1992. MIMO technology is the key to today's wireless broadband networks like 4G cellular and Wi-Fi. Paulraj has received several recognitions including the 2011 IEEE Alexander Graham Bell Medal and the 2014 Marconi Prize and Fellowship. He is a member of eight National Academies in Science / Engineering including those of USA, PR China, Sweden and India. His many awards in India include the Padma Bhushan.



Prof. Arogyaswami Paulraj  
Stanford University,  
USA.

Date: 16.08.2016  
Time: 11.30 - 12:30 AM  
Venue: Community Hall,  
IIT Bhubaneswar, Arugul Campus

### LECTURE II: AN INEVITABLE BONDING OF MACHINE LEARNING WITH BIG DATA

The question still remains and opens to the research community. What is the degree of bigness in the fancy or buzz word called BIG DATA? Motivation with machine learning (ML) for various domains of problems in the context of BIG DATA, is to develop methodologies based on the ability to use computers and to investigate the data for finding structure, knowledge etc., in spite of vague information about the actual structure. The aim is same as in case of statistical models, where one has to understand the structure of data. However, statistical models can only be used where the distribution of data is clearly understood or certain basic/strong assumptions are met. It works and can provide mathematically proven models. ML often uses iterative approaches to learn from data, and use them for validation. Iterations are run through the data till a level of satisfactory pattern is found.

#### Information about Speaker:

Dr Saroj K. Meher is an Assistant Professor of the System Science and Informatics Unit at the Indian Statistical Institute, Bangalore Centre. He worked as a Senior Research Scientist at Research & Development Units of various Industries in India for about three years and was awarded for his excellent contribution in some important projects.

He was working as a Post-Doctoral Fellow and Visiting Assistant Professor at Indian Statistical Institute, Kolkata in 2005-2006 and 2009-2010. He received the Sir. J. C. Bose memorial award of the Institute of Electronics and Telecommunication Engineers (IETE), India in the year 2003 and Orissa Young Scientist award for research in the field of Electronic Sciences & Technology for the year 2003.

His current research interest includes Image processing & analysis including remote sensing imagery, Machine Learning, Pattern Recognition, Granular Computing, Computational Intelligence/Soft Computing. He has contributed about 50 research papers in well-known and prestigious archival journals, international refereed conferences and in the edited monograph volumes.



Dr. Saroj Meher  
Ph.D. Assistant  
Professor, Systems Science and  
Informatics Unit,  
Indian Statistical Institute,  
Bangalore

Date: 20.08.2016  
Time: 2.30-3.30pm Venue: R & D  
building of SOPHITORIUM, Beside  
NISER, Jatni Khurda.

### LECTURE III: BIG DATA & ANALYTICS INTEGRATION IN SMART POWER GRID MANAGEMENT



Mr. Bhartendu Sinha  
Vice President & Managing  
Director, Auto Grid India

Date: 26. 08.2016  
Time: 5.00-6.00 PM  
Venue: School of Electrical  
Sciences, IIT Bhubaneswar  
(Arugul Campus).

The electricity grid is the world's largest, most complex and most critical machine - a basis of the information and modern industrial economies. However excluding SCADA, ERP and new power electronics introduced slowly over last 50 years, the alternating current electricity grid is at a fundamental level unchanged for 125+ years since Tesla created it. This status quo is being altered. The advent of highly distributed renewable energy generation & storage technologies driven by carbon-control and climate-change imperatives, the transformational capabilities of new communication/materials technologies, the critical grid security/reliability needs, and the IT-savvy and quality-demanding customer profile is resulting in a change of the legacy electricity grid into what is now called a Smart Grid. The smart grid continuously generates trillions of data bytes from millions of grid devices (with hundreds of varieties), and requires real-time & complex processing of this data for decision making by control elements. This in-turn needs an application of the most sophisticated big data, analytics & predictive forecast/control technologies to convert a highly instrumented grid into an intelligent smart grid.

#### Information About Speaker:

Bhartendu Sinha is the Vice President & Managing Director India for AutoGrid - a firm recognized by the World Economic Forum, Bloomberg and several others as a leading pioneer in smart grid analytics. He earlier setup & sold smart meter firm Geovas, and he had also held leadership engineering & business roles at Intel, TI, Motorola and startups. Bhartendu holds a B.Tech in Electrical Engg. and M.Tech in Computer Sc. & Engg. from IIT Kanpur, an MS in Software & Telecom Engg. from the Illinois Institute of Technology and a PG Diploma in Mgmt. from IIM-Ahmedabad.

### LECTURE IV: How to Publish a Technical Paper with IEEE

The workshop will offer advice on everything from how the IEEE publishing process works to basic writing tips and submitting a manuscript.

Speaker: Dr. Subhansu Ranjan Samantaray, Associate Professor, IIT, Bhubaneswar

Date – 22:09:2016  
Time - 2.30 PM to 5 PM  
Venue - Institute Auditorium, IIT Bhubneshwar, KGP Campus

### LECTURE V: Emerging Software Technology & Market Trends

This talk will cover the latest advances in technology such as AI/ML/DL (Artificial Intelligence, Machine Learning, Deep Learning), Data as a platform, Agile development via microservices and containers, etc.

Date: 02:11:2016  
Time: 5.45 PM  
Venue: Community Centre, IIT Bhubaneswar (Arugul Campus)

Speaker: Mr. Jnana Ranjan Dash



## Information About Speaker:

Mr. Jnana Ranjan Dash is a technology visionary and executive consultant in Silicon Valley. He focuses on enterprise solutions such as Cloud Computing, Big Data, New Database technologies, Real time analytics and distributed computing. He sits of boards and advisory boards of several Silicon Valley companies. He spent 10 years at Oracle Corporation and was the Group Vice President, Systems Architecture and Technology. He was responsible for setting Oracle's core database and application server product directions and interacted with customers worldwide in translating future needs to product plans. Prior to joining Oracle in 1992, he spent 16 years at IBM in various positions including development of the DB2 family of products and in charge of IBM's database architecture and technology. He is considered a pioneer in relational database technology. Mr. Dash is a frequent speaker at industry forums around the world on the future of software technology. He sits on several boards and advisory boards of companies. He got his B.Eng degree from NIT, Rourkela and won the best graduate gold medal in 1969. He came to Canada on a full scholarship in 1970 and got his M.S. in Systems Design from the University of Waterloo, Canada.

## LECTURE VI: Smart electricity for smart city

Date: 16:11:2016

Time: 11:30 AM

Venue: Silicon Inst. of Technology, Bhubaneswar.

Speaker: Dr. R. Nagaraja, Founder & Managing Director

Information About Speaker: Dr. R. Nagaraja completed his Bachelors in Electrical and Electronics Engineering from Mysore University in the year 1986 and obtained his Master's degree from Indian Institute of Science (IISc.), Bangalore in the year 1988, specialized in Computer Applications to Power Systems and Drives. Dr. Nagaraja was awarded Doctorate for his work titled "Development of algorithm for applications in energy control centers" by world-renowned Indian Institute of Science, Bangalore, India. He started M/s. Power Research & Development Consultants Pvt. Ltd. at Bangalore in 1994. This was his humble debut in the field of Power System and eventually emerged as one of the reputed Power System Consultants internationally. Today PRDC is one among the largest power system consultants in Asia. His specializations include Parallel Computing, Power System Analysis, Simulation, SCADA Systems and Energy Management Systems, Development of Algorithms for Real-Time Power System Simulation and Control, Power Engineering Education and Power System Protection. Dr. R Nagaraja has authored several technical papers and conducted a number of workshops, conferences, seminars throughout the world. Dr. Nagaraja is the brain behind the architecture, design and development of the MiPower™ – Power system analysis software, which is PRDC's flagship product widely, used by Electric utilities, Industries, Consultants and Universities / Engineering colleges globally. Dr. Nagaraja is the Senior Member, IEEE and currently representative for IEEE PES West Chapters under R-10. Dr. Nagaraja was the Chapter Representative, Advisory Committee - IEEE Power and Energy Society and Co-Chair - Organizing Committee, World Utility Summit (WUS) at ELECRAMA 2016. Dr. Nagaraja is actively involved with the academic institutions as an advisor of the technical committee to promote and encourage electrical engineers.

## LECTURE VII: Role of HVDC and FACTS in Future Electric Smart Grid

Speaker: Dr Ram Adapa

Venue: IIT Bhubaneswar

Date: 20:12:2016

Time: 2:45 PM

## Information About Speaker:

He is a Technical Executive in the transmission and substations area with the Power Delivery and Utilization Sector. His research activities focus on high voltage direct current (HVdc) transmission, flexible ac transmission systems, fault current limiters, dynamic circuit ratings to increase transmission capacity, and transmission system reliability performance metrics. He joined EPRI in 1989 as a Project Manager in the Power System Planning and Operations program. Later, he became Product Line Leader

for Transmission, Substations, and Grid Operations, where he developed the research portfolio and business execution plans for the grid operations and planning areas, a portfolio that focused on the needs of a deregulated utility environment. Some of the tools in this portfolio included market restructuring, transmission pricing, ancillary services, and security tools to maintain the reliability of the grid. Before joining EPRI, he was with the Systems Engineering Department, Cooper Power Systems as a Staff Engineer. He has been honored several times by the IEEE for his outstanding contributions to the profession. He has authored or co-authored over 125 technical papers and is an IEEE Distinguished Lecturer. He is an Individual Member of CIGRE, a Technical Advisor of IEC TC115-HVdc Transmission Standards Development, and a Registered Professional Engineer.

#### LECTURE VIII: DISCRETE OPTIMIZATION

<b>Speaker: Dr. Sanjeeb Dash</b> IBM T. J. Watson Research Center, New York, USA	<b>Date: 05/01/2017</b> <b>Time: 4:30 PM</b> <b>Venue: 220, SES Building</b>
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Dr. Sanjeeb Dash is a member of the research staff at the Mathematical Sciences Department of the IBM T. J. Watson Research Center. He works on both theoretical and practical aspects of Discrete Optimization. The focus of his research is Integer Programming and Linear Programming. He has co-authored the QSOpt and QSOpt\_ex linear programming solvers, and over 40 journal papers. He is an Area Editor of the journal Mathematical Programming Computation and an Associate Editor for the journals Operations Research, INFORMS Journal on Computing, Operations Research Letters, and Naval Research Logistics. He received his PhD in Computational and Applied Mathematics from Rice University in 2001 and was subsequently a postdoctoral fellow at Princeton University before joining IBM in 2002.

#### LECTURE IX: INTERNET OF THINGS: INFORMATION ANALYTICS, ENERGY-EFFICIENCY AND HARDWARE SECURITY

<b>Speaker: Prof. Keshab K. Parhi</b> Dept. of Electrical & Computer Engineering University of Minnesota, Minneapolis	<b>Date: 06:01:2017</b> <b>Time: 4.15 PM</b> <b>Venue: ITER, SOA University, Bhubaneswar</b>
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#### About Speaker

Keshab K. Parhi received the B.Tech. degree from the Indian Institute of Technology (IIT), Kharagpur, in 1982, the M.S.E.E. degree from the University of Pennsylvania, Philadelphia, in 1984, and the Ph.D. degree from the University of California, Berkeley, in 1988. He has been with the University of Minnesota, Minneapolis, since 1988, where he is currently Distinguished McKnight University Professor and Edgar F. Johnson Professor in the Department of Electrical and Computer Engineering. He has published 600 papers, is the inventor of 29 patents, and has authored the textbook VLSI Digital Signal Processing Systems (Wiley, 1999) and co-edited the reference book Digital Signal Processing for Multimedia Systems (Marcel Dekker, 1999). Dr. Parhi is widely recognized for his work on high-level transformations of iterative data-flow computations, for developing a formal theory of computing for design of digital signal processing systems, and for his contributions to multi-gigabit Ethernet systems on copper and fiber and for backplanes. His current research addresses VLSI architecture design of signal processing, communications and biomedical systems, error control coders and cryptography architectures, high-speed transceivers, stochastic computing, hardware security, and molecular computing. He is also currently working on Intelligent classification of biomedical signals and images, for applications such as seizure prediction and detection, schizophrenia classification, bio markers for mental disorders, brain connectivity, and diabetic retinopathy screening. Dr. Parhi is the recipient of numerous awards including the 2012 Charles A. Desoer Technical Achievement award from the IEEE Circuits and Systems Society, the 2004 F. E. Terman award from the American Society of Engineering Education, the 2003 IEEE Kiyo Tomiyasu Technical Field Award, the 2001 IEEE W. R. G. Baker prize paper award, and a Golden Jubilee medal from the IEEE Circuits and Systems Society in 2000. He was elected a Fellow of IEEE in 1996. He served as the Editor-in-Chief of the IEEE Trans. Circuits and Systems, Part I during 2004-2005 and as an elected member of the Board of Governors of the IEEE Circuits and Systems society from 2005 to 2007.

## LECTURE X: COGNITIVE COMPUTING: FROM NEURON TO BRAIN

Speaker: Dr Amit Mishra  
Department of Electrical Engineering,  
University of Cape Town, South Africa

Date: 19:01:2017  
Time: 4.15 PM  
Venue: ITER, SOA University, Bhubaneswar

Dr. Amit Kumar Mishra has an academic career spanning over more than 10 years most of which he has spent in working in the domain of radar system engineering and signal processing. He has worked in IIT Guwahati, Australian National University before joining University of Cape Town where he is currently an Associate Professor. He has published 28 journal papers in reputed journals, more than 150 conference papers and has co-authored two books (published by Springer). He is also an applicant/co-applicant in 8 patents. He has successfully supervised three PhD students and is currently a Senior Member of IEEE. His current interests include radar system design, engineering design and cognitive engineering.

### EC Meeting at NIST, Berhampur



### Talk at NIST



### At Gopalpur (After Meeting at NIST)



## Talk at IIT Bhubaneswar



## PES Meeting



## Prof Ram Bbau Adapa (IEEE PES Chapter)



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**Dr. S. R. Samantaray, Chair, PES Society, attended the PES Chapter Chairs meet at Melbourne, Australia during 29th November to 1st December 2016.**