iNIS 2016 Program Outline			
19 December 2016 (Monday)	8:00-9:00	Registration & Refreshment	
	9:00-9:30	Inaugural Event	
	9:30-10:15	Keynote # 1 : "Applications and Challenges of Bioelectrical Systems", **Serge Bernard**, LIRMM AND UNIVERSITY OF MONTPELLIER, FRANCE	
	10:15-10:30	Coffee	
	10:30-11:30	Session 01: Graphene Nanoribbon Devices	Session 02: Special Session: Smart and Connected Health
	11:30-12:30	Session 03: Sensor Systems	Session 04: Hardware/Software for Internet of Things and Smart, Connected World
	12:30-14:00	Lunch	
	14:00-15:00	Session 05: Hardware for Secure Information Processing	Session 06: Special Session: Optimizing Power Converter Technology for Consumer Electronics Devices: An Indian Prospective
	15:00-16:00	Session 07: Student Research Forum: Hardware & Security	
	16:00-16:30	Coffee	
	16:30-17:30	Session 08: Low Power Device Technologies	
	17:30-18:30	Session 09: Reliable VLSI Systems	
	18:30-19:00	Break	TCVLSI Meeting
	19:00-21:00	Dinner	
20 December 2016 (Tuesday)	8:00-9:00	Registration	
	9:00-9:45	Keynote # 2 : "Theoretical and Practical Relations between Low Energy Computation and Reversible Computing Software", **Kalyan Perumalla**, OAK RIDGE NATIONAL LABORATORY (ORNL), USA	
	9:45-10:00	Coffee	
	10:00-11:00	Session 10: Emerging Device Technologies	Session 11: Special Session: Post CMOS Computing
	11:00-12:00	Session 12: Amplifier Systems	Session 13: Cyber Physical Systems and Social Networks
	12:00-14:00	Lunch	
	14:00- 16:00	Session 14: Physical Unclonable Functions for Security	
	16:00-16:30	Coffee	
	16:30-17:30	Session 15: Special Session: Turning software into hardware – Hastlayer	Session 16: Special Session: Modeling and Usage of Nanoscale Process Variations in Emerging Technology
	17:30-18:30	Session 17: Student Research Forum: Information Communication & IoT	
	18:30-19:00	Break	iNIS Steering Committee Meeting
	19:00-21:00	Cultural Event & Banquet Dinner	
21 December 2016 (Wednesday)	8:00-9:00	Registration	
	9:00-9:45	Keynote # 3 : "Beyond Charge Based Computing", **Kaushik Roy**, PURDUE UNIVERSITY, USA.	
	9:45-10:00	Coffee	
	10:00-11:00	Session 18: Quantum and Reversible Technologies	Session 19: Special Session: Cyber-Physical Power Systems: Security Threats and Counter Measures
	11:00-12:00	Session 20: Biomedical VLSI Systems	Session 21: Energy-Efficient VLSI Systems
	12:00-14:00	Lunch	
	14:00-15:00	Session 22: FinFET Devices	
	15:00-16:00	Session 23: Special Session: An Efficient Design Methodology for CNFET based Ternary Logic Circuits	Session 24: Special Session: QSCsim – Charge based Switched capacitor Simulator
	16:00-16:30	Coffee	
	16:30-17:30	Session 25: IEEE WIE	
	17:30-18:00	Closing Remarks and Award Ceremony	

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iNIS 2016 Program Details			
19 December 2016 (Monday)	8:00-9:00	Registration & Refreshment	
	9:00-9:30	Inaugural Event	
	9:30-10:15	Keynote # 1 : "Applications and Challenges of Bioelectrical Systems", **Serge Bernard**, LIRMM AND UNIVERSITY OF MONTPELLIER, FRANCE Chair: Saraju Mohanty, UNT	
	10:15-10:30	Coffee	
	10:30-11:30	**Session 01: Graphene Nanoribbon Devices** Chair: Anurag Srivastava, IIITM, Gwalior	**Session 02: Special Session: Smart and Connected Health** Chair: Aditya Trivedi, IIITM, Gwalior
		"**Modeling of Graphene Nanoribbon Tunnel Field Effect Transistor in Verilog-A for Digital Circuit Design**", *Md Fahad, Zhou Zhao, Ashok Srivastava and Lu Peng*	"**Exploring Human Body Communications for IoT Enabled Ambulatory Health Monitoring Systems**", *Prabha Sundaravadivel, Saraju Mohanty, Elias Kougianos, Prasanth Yanambaka and Himanshu Thapliyal*
		"**Width-Dependent Characteristics of Graphene Nanoribbon Field Effect Transistor for High Frequency Applications**", *Yaser M. Banadaki and Ashok Srivastava*	"**IoT Based Fall Detection for Smart Home Environments**", *Shalom Greene, Himanshu Thapliyal and David Carpenter*
		"**Performance Analysis of Top-contact MLGNR based Interconnects**", *Ramesh Kumar, Rohit Dhiman and Rajeevan Chandel*	
	11:30-12:30	**Session 03: Sensor Systems** Chair: Anupam Shukla, IIITM, Gwalior	**Session 04: Hardware/Software for Internet of Things and Smart, Connected World** Chair: Mahua Bhattacharya, IIITM, Gwalior
		"**Ni-CNT as isopropanol sensor: ab-initio analysis**", *Sushmita Dandeliya, Md Shahzad Khan and Anurag Srivastava*	"**Design and implementation of tunable bandpass filter for Biomedical Applications**", *Saurabh B.K., Nithin Kumar Y.B., Shivnarayan Patidar and Vasantha M.H.*
		"**CMOS-Memristor Hybrid Integrated Pixel Sensors**", *Kamilya Smagulova, Aigerim Tankimanova and Alex Pappachen James*	"**A 4X1 High-Definition Transcranial Direct Current Stimulation Device for Targeting Cerebral Micro Vessels and Functionality using NIRS**", *Gaurav Sharma, Yashika Arora and Shubhajit Roy Chowdhury*
		"**A Reply Cache Mechanism to reduce Query Latency of WSN in IoT Sensory Environment**", *Yeduri Sreenivasa Reddy and K. K. Pattanaik*	"**An Investigation of Power-Performance Aware Accelerator/Core Allocation Challenges in Dark Silicon Heterogeneous Systems**", *Pranshu Kalra, Shaista Hussain and Nitin Chaturvedi*
	12:30-14:00	Lunch	
	14:00-15:00	**Session 05: Hardware for Secure Information Processing** Chair: K.K. Mahapatra, NITR	**Session 06: Special Session: Optimizing Power Converter Technology for Consumer Electronics Devices: An Indian Prospective** Chair: Santanu Mishra
		"**Securing IEEE 1687 Standard On-chip Instrumentation Access using PUF**", *Sudeendra kumar K, Naini Satheesh, Abhishek Mahapatra, Sauvagya Sahoo and K.K.Mahapatra*	"**Power Converter Systems for Consumer Electronics Devices**", *Santanu Mishra*
		"**Hardware Security Threats to DSP Applications in an IoT network**", *Azhar Syed and Mary Lourde R*	
		"**Area and Throughput Analysis of Different AES Architectures for FPGA Implementations**", *Disha Yadav and Arvind Rajawat*	

	15:00-16:00	**Session 07: Student Research Forum: Hardware & Security** Chair: Anirban Sengupta, IITI	
		"**Graphene Nanoribbon Field Effect Transistor based Ultra-Low Energy SRAM Design**", *Shital Joshi, Saraju Mohanty, Elias Kougianos and Prasanth Yanambaka*	
		"**Protecting Ownership of Reusable IP Core Generated during High Level Synthesis**", *Deepak Kachave, Anirban Sengupta*	
	16:00-16:30	Coffee	
	16:30-17:30	**Session 08: Low Power Device Technologies** Chair: Susanta Chakraborty, IIEST, Shibpur	
		"**Performance Analysis of Wavy FinFET And Optimization for Leakage Reduction**", *Anju C, Nisha Kuruvilla, Ayoob Khan T E and Shahul Hameed T A*	
		"**Novel Ultra Low Leakage FinFET Based SRAM Cell**", *Vivek Kumar, Vikas Mahor and Manisha Pattanaik*	
		"**Variation Aware Performance Analysis of TFETs for Low-Voltage Computing**", *Vikash Sehwag, Saurav Maji and Mrigank Sharad*	
	17:30-18:30	**Session 09: Reliable VLSI Systems** Chair: Manisha Pattanaik, IIITM, Gwalior	
		"**A Quadro Coding Technique to Reduce Self Transitions in VLSI Interconnects**", *Ojashri Sharma, Aakash Saini, Sandeep Saini and Abhishek Sharma*	
		"**An Efficient Approach Targeting Broken Topological Clock Path for Master – Generated Clock Pair**", *Pawan Sehgal, Akhilesh C. Mishra, Rangarajan Ramanujam and Sujay Deb*	
		"**Parametric Performance Analysis of Synchronous and Asynchronous Heterogeneous Network on Chip**", *Ayas Kanta Swain,Anil Kumar Rajput and Kamalakanta Mahapatra*	
	18:30-19:00	Break	TCVLSI Meeting
	19:00-21:00	Dinner	
	8:00-9:00	Registration	
	9:00-9:45	Keynote # 2 : "Theoretical and Practical Relations between Low Energy Computation and Reversible Computing Software", **Kalyan Perumalla**, OAK RIDGE NATIONAL LABORATORY (ORNL), USA Chair: G. K. Sharma, IIITM, Gwalior	
	9:45-10:00	Coffee	
	10:00-11:00	**Session 10: Emerging Device Technologies** Chair: Nitin Chaturvedi, BITS, Pilani	**Session 11: Special Session: Post CMOS Computing** Chair: Prasun Ghosal, IIEST, Shibpur
		"**Aromaticity Influence on Electron Transport of Molecular Single Electron Transistor: DFT Investigation**", *Boddepalli SanthiBhushan, Anurag Srivastava, Jyoti Bhadouria, Rinkoo Bhatia and Pankaj Mishra*	"**Post CMOS Computing Beyond Si: DNA Computer as Future Alternative**", *Prasun Ghosal and Mayukh Sarkar*
		"**Proposal of Heterogate Technique for Performance Enhancement of DM-TFET**", *Chaitanya Maradana and Jawar Singh*	"**A Provably Good Method to Generate Good DNA Sequences**", *Swapan Shakhari, Prasun Ghosal and Mayukh Sarkar*
		"**Investigation of DC Characteristic on DG-Tunnel FET With high-K Dielectric Using Distinct Device Parameter**", *Shraddha Thakre, Ankur Beohar, Vikas Vijayvargiya, Nandakishor Yadav and Santosh K. Vishvakarma*	
		Session 12: Amplifier Systems Chair: Shahikala Tapaswi, IIITM, Gwalior	**Session 13: Cyber Physical Systems and Social Networks** Chair: K. K. Mahapatra, NITR
		"**A 60 dB Bulk-driven Rail-to-Rail Input/Output OTA**", *Abhishek Shrivastava, Ajay Pratap Gangwar, Rahul kumar and Rohit Dhiman*	"**An Edge Contribution-Based Approach to Identify Influential Nodes from Online Social Networks**", *Samya Muhuri, Susanta Chakraborty and S.K. Setua*

20 December 2016 (Tuesday)	11:00-12:00	"**A 0.5V Voltage-Combiner based Pseudo Differential OTA design in CMOS using Weakly inverted Transistors**", *Antaryami Panigrahi and Abhipsa Parhi*	"**Naïve Bayes Approach for Predicting Missing Links in Ego Networks**", *Anand Kumar Gupta and Neetu Sardana*
		"**Mixed-Mode Simulation of Common Emitter Amplifier Design using Bipolar Charge Plasma Transistor**", *Chitrakant Sahu and Nitesh Agrawal*	"**A Neural Network-based Appliance Scheduling Methodology for Smart Homes and Buildings with Multiple Power Sources**", *Raj Mani Shukla, Prasanna Kansakar and Arslan Munir*
	12:00-14:00	Lunch	
	14:00- 16:00	**Session 14: Physical Unclonable Functions for Security** Chair: Susanta Chakraborty, IIEST, Shibpur	
		"**Novel FinFET based Physical Unclonable Functions for Efficient Security Integration in the IoT**", *Venkata P. Yanambaka, Saraju P. Mohanty and Elias Kougianos*	
		"**A Modified RO-PUF with Improved Security Metrics on FPGA**", *Naini Satheesh, Abhishek Mahapatra, Sudeendra kumar K, Sauvagya Sahoo and K.K.Mahapatra*	
		"**TV-PUF : A Fast Lightweight Analog Physical Unclonable Function**", *Vikash Sehwag and Tanujay Saha*	
		"**A Novel Aging Tolerant RO-PUF for Low Power Application**", *Sudeendra Kumar and Kamalakanta Mahapatra*	
	16:00-16:30	Coffee	
	16:30-17:30	**Session 15: Special Session: Turning software into hardware – Hastlayer** Chair: Zoltán Lehóczky	**Session 16: Special Session: Modeling and Usage of Nanoscale Process Variations in Emerging Technology** Chair: K. V. Arya, IIITM, Gwalior
		"**Turning software into hardware – Hastlayer**", *Zoltán Lehóczky, Richárd Tóth, András Retzler, Márk Bartha, Benedek Farkas and Krisztián Somogyi*	"**Compact Behavioral Modeling and Time Dependent Performance Degradation Analysis of Junction and Doping Free Transistors**", *Meena Panchore, Jawar Singh, Saraju P Mohanty and Elias Kougianos*
			"**Secure Multi-Key Generation Using Ring Oscillator based Physical Unclonable Function**", *Saraju Mohanty, Elias Kougianos, Prasanth Yanambaka, Jawar Singh*
	17:30-18:30	**Session 17: Student Research Forum: Information Communication & IoT** Chair: Anirban Sengupta, IITI	
		"**Classification of Non-Functional Requirements from SRS documents using Thematic roles**", *Prateek Singh, Deepali Singh and Ashish Sharma*	
		"**A Computation Offloading Scheme Leveraging Parameter Tuning for Real-Time IoT Devices**", *Raj Mani Shukla and Arslan Munir*	
	18:30-19:00	Break	iNIS Steering Committee Meeting
	19:00-21:00	Cultural Event & Banquet Dinner	
	8:00-9:00	Registration	
	9:00-9:45	Keynote # 3 : "Beyond Charge Based Computing", **Kaushik Roy**, PURDUE UNIVERSITY, USA. Chair: Ashok Srivastava, LSU	
	9:45-10:00	Coffee	
	10:00-11:00	**Session 18: Quantum and Reversible Technologies** Chair: Rajendra Sahu, IIITM, Gwalior	**Session 19: Special Session: Cyber-Physical Power Systems: Security Threats and Counter Measures** Chair: B. K. Panigrahi, IITD
		"**Optical Characteristics of Solution Processed MoO2/ZnO Quantum Dots based Thin Film Transitor**", *Hemant Kumar, Yogesh Kumar, Gopal Rawat, Chandan Kumar, Bhola N Pal and Satyabrata Jit*	"**Bid Modification Attack in Smart Grid for Monetary Benefits**", *Kush Khanna, Bijaya Ketan Panigrahi, and Anupam Joshi*

21 December 2016 (Wednesday)		"**Electrical and optical characteristics of Pd/ZnO Quantum dots based Schottky Photodiode on n-Si**", *Yogesh Kumar, Hemant Kumar, Gopal Rawat, Chandan Kumar, Bhola.N Pal and S. Jit*	
		"**Design of ESOP-RPLA Array using DRG2 and DRG4 Gates based on Reversible Logic Technology**", *Anurag Govind Rao and Dr. Anil Kumar Dhar Dwivedi*	
	11:00-12:00	**Session 20: Biomedical VLSI Systems** Chair: Manisha Pattanaik, IIITM, Gwalior	**Session 21: Energy-Efficient VLSI Systems** Chair: Pankaj Srivastava, IIITM, Gwalior
		"**Computing in Ribosomes: Implementing Sequential Circuits using mRNA-Ribosome System**", *Pratima Chatterjee, Mayukh Sarkar and Prasun Ghosal*	"**Area and Power-Efficient Timing Error Predictor for Dynamic Voltage and Frequency Scaling Application**", *Govinda Sannena and Bishnu Prasad Das*
		"**Memristor Crossbar-based Pattern Recognition Circuit using Perceptron Lerning Rule**", *Muhammad Khalid and Jawar Singh*	"**LECTOR Based Gated Clock Approach to Design Low Power FSM for Serial Adder**", *Pritam Bhattacharjee and Alak Majumder*
		"**Mathematics using DNA: Performing GCD and LCM on a DNA Computer**", *Mayukh Sarkar and Prasun Ghosal*	"**Energy detection based dynamic spectrum sensing for 2.4GHz ISM band**", *Saket Srivastava, Mohammad Hashmi, Supratim Das and Dibakar Barua*
	12:00-14:00	Lunch	
	14:00-15:00	**Session 22: FinFET Devices** Chair: Anurag Srivastava, IIITM, Gwalior	
		"**Impact of Work Function Fluctuations on Threshold Voltage Variability in a Nanoscale FinFETs**", *Rituraj Singh Rathore, Rajneesh Sharma and Ashwani K. Rana*	
		"**Analysis of Single-Trap-Induced Random Telegraph Noise on Asymmetric High-k spacer FinFET**", *Nandakishor Yadav, Ankur Beohar and Santosh K. Vishvakarma*	
		"**Low Stand-by Power and Process Variation Tolerant FinFET based SRAM cell**", *Akanksha Bhadoria, Mukesh Chaturvedi, Vikas Mahor and Manisha Pattanaik*	
		"**FinFET-based Low Power Address Decoder under Process Variation**", *Mukesh Chaturvedi, Akanksha Bhadoria, Vikas Mahor and Manisha Pattanaik*	
	15:00-16:00	**Session 23: Special Session: An Efficient Design Methodology for CNFET based Ternary Logic Circuits** Chair: M. B. Srinivas, BITS, Pilani	**Session 24: Special Session: QSCsim – Charge based Switched capacitor Simulator** Chairs: Binsu J Kailath and Dinesh Ganesan
		"**An Efficient Design Methodology for CNFET based Ternary Logic Circuits**", *Chetan Vudadha, Sai Phaneendra P and M.B. Srinivas*	"**QSCsim – Charge based Switched Capacitor Simulator**", *Binsu J Kailath and Dinesh Ganesan*
	16:00-16:30	Coffee	
	16:30-17:30	**Session 25: IEEE WIE** Chair: Manisha Pattanaik, IIITM, Gwalior	
	17:30-18:00	Closing Remarks and Award Ceremony	