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### **Technical Program**

Session 1.1	Green Computing (1)
Date/Time	Thursday, 8 October 2015 / 14:00–15:30.
Chair	Dr. Thinagaran Perumal, Universiti Putra Malaysia, Malaysia

- **EXAMPLE 2** Analysis of an Efficient Partial Product Reduction Technique 1 Keerti Vyas, Ginni Jain, Vijendra K. Maurya and Anu Mehra
- **Comparative Power Analysis of CMOS & Adiabatic Logic Gates** 7 *Himanshi Sharma and Rajan Singh*
- Critical Analysis of Cross-Layer Approach 12 G. N. Vivekananda and P. Chenna Reddy
- Assistive Technology for Dyslexic using Accelerometer based Hand Writing Recognition and Analog IVRS 17

Gaurav Srivastav and AnshitaAgarwal

- **EXAMPLE 23** Automatic Extraction of Blood Vessels and Veins using Laplace Operator in Fundus Image 23 Jiri Minar, Marek Pinkava, Kamil Riha, Malay Kishore Dutta and Namita Sengar
- Comparative Analysis of Contrast Enhancement Techniques on Different Images 27 Deepa Raj and Pushpa Mamoria
- **Realization of OFDM based Free Space Optics** 32 *Raminderjit Singh and Gaurav Soni*

Session 1.2	Power-aware Algorithms and Protocols (1)
Date/Time	Thursday, 8 October 2015 / 14:00–15:30
Chair	Dr. Sangharatna Godboley, National Institute of Technology Rourkela

- **Creen-JEXJ: A New Tool to Measure Energy Consumption of Improved Concolic Testing** 36 Sangharatna Godboley, Arpita Dutta, Bhagyashree Besra and Durga Prasad Mohapatra
- **Enhanced Power Quality of MLI using PSO Based Selective Harmonic Elimination** 42 *N. Vinoth Kumar, V. Kumar Chinnaiyan, M. Pradish and M. S. Divekar*
- **A Low Energy Consumed Routing Multipath Protocol In MANETS** 48 Sumant Kumar Mohapatra, Sushil Kumar Mahapatra, Sukant Behera and Lalit Kanoje
- **Cut-based Classification for User Behavioral Analysis on Social Websites** 53 Amol P. Bhagat, Kiran A. Dongre and Priti A. Khodke
- System Architecture for Social Security Cash Transfer Through Branchless Banking in Nepal 60 Mahesh Maharjan and Subarna Shakya
- Building Engineering e-Learning grid to Foster Engineering Aptitude and Engineering Attitude by Leveraging ICT 65
  - Himdweep Walia and Sandhya Katiyar
- **FACTS Devices for Stability Enhancements** 69 Sajan Varma and Akhilesh A. Nimje
- **An Experimental Analysis of Penetration Loss Around Buildings of an Institution** 75 Sushil Kumar Mahapatra, Sumant Kumar Mohapatra, Sukant Behera and Lalit Kanoje

Session 1.3	Eco-friendly Computing & Communication Resources (1)
Date/Time	Thursday, 8 October 2015 / 14:00–15:30
Chair	Dr. Sajaivir Singh, J. P. Institute of Information Technology, Noida

- Acceleration of Drug Discovery Process on GPU 77 Ajinkya Nikam, Akshay Nara, Deepak Paliwal and S. M. Walunj
- Air Cannon Based Electronic Lifeguard System 82 Anish Gupta, Zahran Mhaskar, Chirag Bafna, Mahesh Magar and Prathik Shetty
- Area optimized Implementation of Unsymmetric Trimmed Adaptive Median Filter for Edge Preservation on FPGA 86

A. Lole Bhagyashri, A. C. Pise and S. V. Surwase

- Design of an Expert System for Competence and Performance Management using Sanskrit Computational Linguistics 90 Prajakta R. Chaudhari, Pooja C. Gangurde and Nikhil L. Kulkarni
- **GPS Supported City Bus Tracking & Smart Ticketing System** 93 *Ajay Shingare, Ankita Pendole, Nikita Chaudhari, Parikshit Deshpande and Samadhan Sonavane*
- **Exact Virtualization of Industrial Environment on Web Using SCADA with Artificial Intelligence** 99 *Suvarna Sanap, Rutuja Nawale, Snehal Kapse, Akanksha Kale and Mahesh Korade*
- Cascaded DNA Cryptography and Steganography 104 Shweta and Sanjeev Indora
- **Comparison of Significant Issues in Multicore Cache Coherence** 108 *Amit D. Joshi and N. Ramasubramanian*

Session 1.4	Internet of Things (1)
Date/Time	Thursday, 8 October 2015 / 14:00–15:30
Chair	Prof. Subarna Shakya, Tribhuvan University, Nepal

- **A Mobility Analytics Framework for Internet of Things** 113 Mukesh Taneja
- **ATM based WMN Architecture for Distributed Generation Systems in Electrical Networks** 119 S. V. Vambase and S. R. Mangalwede
- **Performance Analysis of EPON Link Using OSSB & ODSB** 124 *Priyanka Sehgal and Gaurav Soni*
- **A Review on Desirable Measures for Good Key Pre-distribution Scheme in Wireless Sensor Network** 129 *Monjul Saikia, Irani Acharjamayum and Md. A. Hussain*
- **EXAMPLE 2** Analysis of Computer Vision and Sensor Technologies to Assist the Visually Impaired 135 *Amit Singh, Abhishek Thakur and Ankur Taparia*
- Design and Implementation of Low power, Cost effective Human Machine Interface by Left and Right Eye Movement Technique 139

A. Saravanan and Silpa Ajith Kumar

**5G : Revolution of Future Communication Technology** 143 *Sanjay Kumar, Gagan Gupta and Kunwar Rajat Singh* 

Case study of Internet of Things in area of Agriculture, `AGCO's Fuse Technology's 'Connected Farm Services' 148

Rashi Chaudhary, Prakhar Pandey, Jalaj Ranjan Pandey and Pulkit Chaudhary

**Content of Sector-based Routing in Wireless Ad hoc Networks** 154 *Shweta R. Malwe and G. P. Biswas* 

Session 1.5	Networking and Communication Protocols (1)
Date/Time	Thursday, 8 October 2015 / 14:00–15:30
Chair	Dr. Muneesh Trivedi, Academy of Business & Engineering Sciences, India

- **Review and Analysis of Photonic Crystal Beam Splitters for Optical Communication Applications** 160 Juhi Sharma, Ritu Sharma and Lalit Kumar Dusad
- **EXAMPLE 2** An Inset Fed Patch Antenna With a Modified Slot for WLAN and WiMAX Applications 163 Nishant Kaul, Sohaib Bhat, Anchal Gupta and Shalini Sah
- **A Survey on Fault Tolerance Techniques in Wireless Sensor Networks** 168 *Gholamreza Kakamanshadi, Savita Gupta and Sukhwinder Singh*
- **A Novel Symmetric Key Encryption Technique using Cellular Automata** 174 *Deepika Parashar, Satyabrata Roy and Vipin Jain*
- **A Framework for Network Assisted HTTP ABR Video Streaming in LTE-WLAN Networks** 179 *Mukesh Taneja*
- Analysis of Various Clock Recovery Methods for IP Set- Top Box 185 Monika Jain and Usha Tiwari
- **EXAMPLE 2** An Effective Model for Anomaly IDS to Improve the Efficiency 190 *S. Chordia Anita and Sunil Gupta*
- **Performance Analysis of DFS based Ordered Walk Learning Routing Protocol in MANET** 195 Balram Swami and Ravindar Singh
- **Simulation Based Comparison between OWL and AODV** 199 Balram Swami and Ravindar Singh

Session 2.1	Sensor Webs (1)
Date/Time	Thursday, 8 October 2015 / 16:00–18:00
Chair	Mr. Ashok Kr Chauhan, General Manager, Noble System

- **A Novel Cluster Head Selection Scheme using Fuzzy Logic in Wireless Sensor Networks** 203 *Ajai Kumar Mishra, Rakesh Kumar and Jitendra Singh*
- **EXAMPLE 1** An Efficient Implementation of Multi Matrix Clocks in the Distributed System 209 Avaneesh Singh and Neelendra Badal
- **A Scheme for Patient Study Retrieval from 3D Brain MR Volumes** 214 Mangipudi Partha Sarathi and M. A. Ansari
- **ARTQS: An Advanced Real-Time Query Scheduling Approach in Wireless Sensor Networks** 219 *Bibudhendu Pati, Joy Lal Sarkar, Chhabi Rani Panigrahi and Mayank Tiwary*

- **Petecting and Overcoming Blackhole Attack in Mobile Adhoc Network** 225 Sakshi Jain and Ajay Khuteta
- Content Co
- **Energy Efficient Fault-Tolerant Clustering Algorithm for Wireless Sensor Networks** 234 *Kumar Nitesh, Md. Azharuddin and Prasanta K. Jana*
- **Performance Analysis of OTDM Link at 40 Gbps** 240 *Tajinder Kaur and Gaurav Soni*

Session 2.2	Big Data and Analytics (1)
Date/Time	Thursday, 8 October 2015 / 16:00–18:00
Chair	Mr. Nilanjan Bandyopadhyay, Sr Business Consulatant, Dessault Systems, Gurgoan

An Optimized Cloud Based Big Data Processing Mechanism Using Self-Organizing Map in Hadoop Environments 244

Girish Neelakanta Iyer, Salaja Silas and Ganesh Neelakanta Iyer

- **EXAMPLE 7** An Efficient User Oriented Permanent Deletion Scheme for Cloud Object Storage 247 *J. Sharon Moses and L. D. Dhinesh Babu*
- Big Data Analytics for Health Systems 253 Vikash Yadav, Monika Verma and Vandana Dixit Kaushik
- **Business Model Innovation through Big Data** 259 Rashi Chaudhary, Prakhar Pandey and Jalaj Ranjan Pandey
- Big Data Analytics Techniques: A Survey 264 Poonam Vashisht and Vishal Gupta
- **Design of a Low Power Adiabatic Logic based Johnson Counter** 270 *Himanshi Sharma and Rajan Singh*
- **EXAMPLE 1** An Efficient Implementation of Matrix Clocks in the Distributed Computing Environment 275 *Avaneesh Singh and Neelendra Badal*
- **A Survey on Big Data Storage Strategies** 280 Gazal and Pankaj Deep Kaur
- An Overview of Hybrid DataBases 285 Saumya Goyal, Pragati Prakash Srivastava and Anil Kumar

Session 2.3	Image Processing & Pattern Recognition (1)
Date/Time	Thursday, 8 October 2015 / 16:00–18:00
Chair	Dr. Dhiraj Gupta, Hi-tech Institute of Technology, Ghaziabad

**A Weighted Semantic Feature Expansion Using Hyponymy Tree for Feature Integration in Sentiment** Analysis 289

Jeevanandam Jotheeswaran and S. Koteeswaran

A Generalized Contrast Enhancement Algorithm for Seamless High Contrast Image Across Devices in Internet of Things 294

Ghanapriya Singh

- **Bilateral Filter for Image Denoising** 299 Priyanka D. Patil and Anil D. Kumbhar
- **Attendance System based on Face Recognition using Eigen face and PCA Algorithms** 303 *Priyanka Wagh, Jagruti Chaudhari, Roshani Thakare and Shweta Patil*
- **Comparative Analysis of K-Means with Other Clustering Algorithms to Improve Search Result** 309 Shashi Mehrotra and Shruti Kohli
- Comparative Analysis of Contrast Enhancement Techniques with Fuzzy Logic 314 Pushpa Mamoria and Deepa Raj
- Clustering of Breast Cancer Tumor using Third order GLCM Feature 318 Vrushali Gaike, Rahul Mhaske, Satish Sonawane, Nazneen Akhter and Prapti D. Deshmukh
- A Survey on Fingerprint Biometric Recognition System 323 Varsha Rathod
- **EXAMPLE 1** Implementation of Pattern Discovery to Retrieve Relevant Document using Text Mining 327 Shivani D. Gupta and B. P. Vasgi

Session 2.4	Cloud Computing (1)
Date/Time	Thursday, 8 October 2015 / 16:00–18:00
Chair	Prof. Durga Prasad Mohapatra, National Institute of Technology Rourkela, India

- **A Knowledge based Indian Agriculture: With Cloud ERP Arrangement** 333 *Tameem Ahmad, Shamim Ahmad and Mohammed Jamshed*
- **A Resource Allocation Strategy in Cloud using Roulette Wheel Selection Method** 341 *R. Madhumathi and R. Radhakrishnan*
- **A Novel Cryptographic and Steganographic Approach for Secure Cloud Data Migration** 346 Ankit Dhamija and Vijay Dhaka
- **EXAMPLE 2** An Approach to IoT based Car Parking and Reservation system on Cloud 352 *Vaibhav Hans, Parminder Singh Sethi and Jatin Kinra*
- **Access Control Model with Enhanced Flexibility and Scalability for Cloud** 355 *RajaniKanth Aluvalu and Lakshmi Muddana*
- A Hybrid Scheme for Anonymous Authentication of Data Storage in Cloud 360 M. Bala Singh Moses and K. Ambika
- Acceleration of CUDA Programs for Non-GPU Users Using Cloud 365 Tejas Pisal, Sandip M. Walunj, Aslam Shrimali, Omprakash Gautam and Lalit Patil
- A Latency Reduction Mechanism for Virtual Machine Resource Allocation in Delay Sensitive Cloud Service 371
  - Rahul Kumar Sharma, Pragya Kamal and Sarv Pal Singh
- **Cloud Enabled and Cluster Based Efficient Data Broadcasting in VANETs** 376 Mohd Umar Farooq, Mohammed. Pasha and Khaleel-Ur-Rahman Khan
- **Web Service Selection/Composition based on PSOA: A Review** 382 Arnab Paul, Laishram Jenny Chanu and Sangeeta Kalita
- Mobile-Cloud Driven Conditional Monitoring System A Practical Perspective 388 Manasvi Jain, Seshu Babu Tolety, Hemadri Pavan Kumar, Pinku Hazarika and Sanath Shenoy
- **A Theoretical Model to Improve Capability in CSL for Multi-Tier Applications in Saas Environment** 393 Ananthi Sheshasaayee and T. A. Swetha Margaret

Session 2.5	Machine Learning (1)
Date/Time	Thursday, 8 October 2015 / 16:00–18:00
Chair	Er. Nikhil L. Kulkarni Sandip Institute of Technology & Research Centre, Nashik

- **Example of Classifiers using Voting** 399 Isha Gandhi and Mrinal Pandey
- **A Text Based Decision Tree Model for Stock Market Forecasting** 405 S. S. Panigrahi and J. K. Mantri
- **EEG Monitored Mind De-stressing Smart Phone Application using Yoga and Music Therapy** 412 *Gautham Raj Vijayaragavan, R. L. Raghav, K. P. Phani and Vivek Vaidyanathan*
- **Example 2** Latent Semantic Analysis (LSA) Based Object Recognition and Clustering 416 Vinaykumar Hebballi and Vidhu Rojit
- Design and Analysis of Rectangular Microstrip Patch Antenna using Metamaterial for WLAN Application at 2.4 GHz 422 Rekha Kumari Bagri and Santosh Meena
- **Electronics Nose System for Odour Detection and Classification** 426 *Poonam Patil and Vinayak Kulkarni*
- Entire Gabor Kernel Locality Preserving Fisher Discriminant Analysis Subspace Approach for Expression Recognition 435 G. P. Hegde and M. Seetha
- **A Rough Set-based Reasoner for medical diagnosis** 429 *Kareem Kamal A.Ghany, Heba Ayeldeen, Hossam M. Zawbaa and Olfat Shaker*

#### Session Poster Presentations

**Date/Time** Thursday, 8 October 2015 / 15:30–18:00

- **EXAMPSE 2** An RSA Based Certificateless Signature Scheme for Wireless Sensor Networks 443 *Jitendra Singh, Vimal Kumar and Rakesh Kumar*
- **Designing a Technique for Detecting Intrusion based on Modified Adaptive Resonance Theory Network** 448 *Mukul Chauhan, Abhay Pratap, Sonika and Anurag Dixit*
- **Design of Digit Serial FIR Filter for Power Optimization** 452 Samidha Shirish Pusegaonkar and Vipin S. Bhure
- Design and Implementation of Modules to Prevent Tampering in Monitoring System to Enhance Security 458

Abhay Pratap, Mukul Chauhan, Sonika and Anurag Dixit

- Sentences and Circumplexes Prediction of Human Behaviour and Human Emotional States in Social Media 463
  - Navanshu Rastogi
- **Flexible Wound Assessment System for Diabetic Patient using Android Smartphone** 466 *Ashish Bhelonde, Nikhil Didolkar, Shubham Jangale and Nikhil L. Kulkarni*
- **Design and Implementation of Enhanced MQS Algorithm** 470 *Gurmeet Kaur, Rajiv Kumar Bedi and S. K. Gupta*

- Design and Implementation of Control of Solid State Relay Switches Using MSP 430 for Instantaneous High Current Supply 474 T. K. Smitha, B. A. Ravikiran, P. Karthik and T. K. Mondal
- **Machine Learning Approaches on Map Reduce for Big Data Analytics** 480 *Ananthi Sheshasaayee and J. V. N. Lakshmi*
- **Smart Centralized Power Control for Buildings Using WSN** 485 *Aarti Dhadiwal, Payal Disoja, Priyanka Dawande, Tejashree Patil and Amit H. Palve*
- **Three Step Data Security Model for Cloud Computing based on RSA and Steganography Techniques** 490 *Vinay Kumar Pant, Jyoti Prakash and Amit Asthana*

Session 3.1	Data Mining (1)
Date/Time	Friday, 9 October 2015 / 14:00–15:30
Chair	Prof. Bhawna Mallick, Galgotias College of Engineering & Technology

- **A Survey on Data Mining approaches for Dynamic Analysis of Malwares** 495 *Kshitij Shah and Dushyant Kumar Singh*
- Blood Donor's Safety using Data Mining 500 Rohini Patil, Pooja Pawar, Madhu Poi, Tejashree Patil and Namrata Ghuse
- **A Review Paper on Data Preprocessing: A Critical Phase in Web Usage Mining Process** 506 Sanjay Kumar Dwivedi and Bhupesh Rawat
- **Comparative analysis of Bagging, Stacking and Random Subspace algorithms** 511 *Pooja Shrivastava and Manoj Shukla*
- **EXAMPLANTIC Detection of Diabetic Retinopathy using Image Processing and Data Mining Techniques** 517 *Ketki Argade, Kshitija Deshmukh, Madhura Narkhede, Nayan Sonawane and Sandeep Jore*
- Smart Web Miner Extending Web Browser with Mining framework based on User Behavior & Webof-Thing Patterns for Web Personalization 522 Privesh Lakar, Suyambulingam Rathinasamy Muthupandi, Siba Prasad Samal and Niranjan B. Patil
- **EXAMPLE 2** Application of Data Mining in Predicting Placement of Students 528 *Karan Pruthi and Parteek Bhatia*
- **An Inductor-less LC-VCO for Ka Band Using 90nm CMOS** 534 Inderjeet Kaur Saini, Tejinder Singh and Remalli Dinesh

Session 3.2	Database Management Systems (1)
Date/Time	Friday, 9 October 2015 / 14:00–15:30
Chair	Dr. Arun Sharma, Indira Gandhi Delhi Technical University for Women, Delhi

- Analysis of Various NoSql Database 539 Pragati Prakash Srivastava, Saumya Goyal and Anil Kumar
- **EXAMPLE 2** Limitations and Challenges of HDFS and MapReduce 545 Jean-François Weets, Manish Kumar Kakhani and Anil Kumar

- Acceleration of Game Tree Search Using GPGPU 550 Kajal Mahale, Shital Kanaskar, Prachi Kapadnis, Madhuri Desale and S. M. Walunj
- **E-readiness To Implement E-government --- An Overview Study in HR Domain in Nepal** 554 Shreedhar Marasini and Subarna Shakya
- **Scaling GMM Expectation Maximization Algorithm Using Bulk Synchronous Parallel Approach** 558 *Abhay A. Ratnaparkhi, Emmanuel Pilli and R. C. Joshi*
- **Transforming a Website from Desktop to Mobile : A Cross Platform Viewpoint** 563 *B. Leeladevi, Pinku Hazarika and Hemadri Pavan Kumar Nanyam*
- **Big Database Stores A Review on Various Big Data Datastores** 567 Koshy George and Tessy Mathew
- **A Modern Data Architecture with Apache Hadoop** 574 *Tripty Singh and V. S. Darshan*
- **Wrist Pulse Gripper System** 580 Faijan Mafat and Bhaskar Thakker

Session 3.3	Networking and Communication Protocols (2)
Date/Time	Friday, 9 October 2015 / 14:00–15:30
Chair	Dr. Rajan Anand Malik, JIMS Engineering College, Greater Noida

- A Novel Approach to Enhance Security in WEP 585 Ashish Garg
- Optimizing Power Consumption in IoT based Wireless Sensor Networks using Bluetooth Low Energy 589 Karan Nair, Janhavi Kulkarni, Mansi Warde, Zalak Dave, Vedashree Rawalgaonkar, Ganesh Gore and Jonathan Joshi
- Evaluating System Performance for Handling Scalability Challenge in SDN 594 Avantika Kondel and Anita Ganpati
- **CAP to DIAMETER Protocol Converter** 598 G. S. Pallavi, Mohana and H. V. Ravish Aradhya
- Comparative Performance Analysis of MANET Routing Protocols in Military Operation Using NS2 603 Sandhya Katiyar, Rajneesh Gujral and Bhawna Mallick
- **EXAMPLE 1** Implementation of Cluster Based Certificate Revocation in Mobile Ad Hoc Networks 610 Megha R. Jarang and M. V. Nimbalkar
- An Aid Towards the Health Examination of Structures using Wireless Sensor Network 616 Nilesh Jha, Suraj Bhagat, Chandni Kathuriya, Varsha Kawale and Amit Palve
- **Cluster Based Route Discovery Technique for Routing Protocol in MANET** 622 *Poonam Thakur and Anita Ganpati*
- A Survey of Various Approaches to Detect Selfishness in Wireless Ad-hoc Networks 627 Sachi N. Shah and Rutvij H. Jhaveri

#### Ad-hoc Vehicle Routing Problem 633

Tejal Carwalo and Vandana Patil

Session 3.4	Sensor Webs (2)
Date/Time	Friday, 9 October 2015 / 14:00–15:30
Chair	Er. Nikhil L. Kulkarni, Sandip Institute of Technology & Research Centre, Nashik

- **EXAMPLE 2** Improved TABU Search Based Energy Efficient Routing Protocols for Wireless Sensor Networks 637 Jaspreet Kaur and R. C. Gangwar
- **Data Collection And Analytics Strategies of Social Networking Websites** 643 Sandeep Kumar and Rahul Rishi
- **Wultilevel Balanced Distributed Energy Efficient Heterogeneous Protocol for Wireless Sensor Networks** 649 *Suman Srivastava, Awadhesh Kumar and Anamika Pandey*
- **EMS: Enhanced Mobility Scheme for Controlled and Lossy Networks** 655 *Riaz A. Khan and Ajaz Hussain Mir*
- **EXAMPLE 2** Hybrid GSTEB Routing Protocol Using Clustering and Artificial Bee Colony Optimization 661 Sandeep Kaur and R. C. Gangwar
- **Efficient Implementation of UTAMF Algorithm for Edge Preservation on FPGA** 667 *A. Lole Bhagyashri, A. C. Pise and S. V. Surwase*
- Acknowledgement Security for MANET using EAACK 671 Deore Suvarna, Erande Pallavi, Lahane Sumitra, Dhatrak Chhaya and Mahesh Korade
- **A Novel Approach to Improve Intelligent Traffic Management System (ITMS)** 679 Ashish Garg
- **Energy Efficient Clustering Algorithm for Data Aggregation in Wireless Sensor Network** 683 *Binkal S. Ahir, Rohan Parmar and Bintu Kadhiwala*

Session 3.5	Image Processing & Pattern Recognition (2)
Date/Time	Friday, 9 October 2015 / 14:00–15:30
Chair	Mr. Hemadri Pavan Kumar N, Siemens Technology and Services Limited, India

- **Face Recognition Techniques with Permanent Changes: A Review** 689 *Alka Jindal, Savita Gupta and Lakhwinder Kaur*
- **Perceptual Hashing in the 3D-DWT Domain** 694 Navajit Saikia
- **EXAMPLE 2** Log Analytics on Cloud using Pattern Recognition A Practical Perspective to Cloud based Approach 699 *Avinash Bhole, B. Adinarayana and Sanath Shenoy*
- **EXAMPLE 2** Human Gait Analysis using Wavelet De-noising and Total Variation Filtering 704 Amit Singh and Abhishek Thakur
- **EXAMPLE 2** Innovative Algorithms for Parts of Speech Tagging in Hindi-English Machine Translation Language 709 Shachi Mall and Umesh Chandra Jaiswal

- Image Retrieval using Color and Texture Binary Patterns 715 A. Bhagyalakshmi and V. Vijaya Chamundeeswari
- **A Comparitive Analysis of Single Pattern Matching Algorithms in Text Mining** 720 *Ananthi Sheshasayee and G. Thailambal*
- **Facial Components Extraction and Expression Recognition in Static Images** 726 *Mameeta Pukhrambam, Arundhati Das and Ashim Saha*

Session 4.1	Green Computing (2)
Date/Time	Friday, 9 October 2015 / 16:00–18:00
Chair	Prof. Subarna Shakya, Tribhuvan University, Nepal

- **Automatic Hair Color De-identification** 732 *Jiri Prinosil, Ales Krupka, Kamil Riha, Malay Kishore Dutta and Anushikha Singh*
- **Experimental Analysis of Energy Management Techniques for Mobile Devices Using Cloud Computing** 737 Oshin Sharma and Hemraj Saini
- Lightweight Protocols for LTE M2M Networks 743 Mukesh Taneja
- **Few Location based Routing Protocols in Wireless Sensor Network** 749 *Shruti and Uma Kumari*
- **Hybrid Pi-Fuzzy Logic Controller Based DC-DC Converter** 753 Deepak Renwal and Mahendra Kumar
- **Example 2** Green Computing & Strategies 758 Shivam Singh
- Epsilon-SVR and Decision Tree for Stock Market Forecasting 761 S. S. Panigrahi and J. K. Mantri
- Green Computing 767 Shweta Vikram
- **Example 773 Example 773 Example 773 Reena Panwar and Bhawna Mallick**
- **Development of IoT based Vehicular Pollution Monitoring System** 779 *Ramagiri Rushikesh and Chandra Mohan Reddy Sivappagari*

Session 4.2	Internet of Things (2)
Date/Time	Friday, 9 October 2015 / 16:00–18:00
Chair	Prof. K. Chandrasekaran, National Institute of Technology, India

- **Energy Efficient Network Architecture for IoT Applications** 784 *P. Sarwesh, K. Chandrasekaran, N. Shekar and V. Shet*
- **EXAMPLE 2** Integration in the Physical World in IoT using Android Mobile Application 790 *M. Thiyagarajan and Chaitanya Raveendra*
- Healthcare based on IoT using Raspberry Pi 796 M. Surya Deekshith Gupta, Vamsi Krishna Patchava and Virginia Menezes
- **Design of a Telemonitoring System for Detecting Falls of the Elderly** 800 Nitha V. Panicker and A. Sukesh Kumar

- Evolution of IoT in Smart Vehicles: An Overview 804 M. Keertikumar, M. Shubham and R. M. Banakar
- Internet of Things and its Challenges 810 Mayank Dixit, Jitendra Kumar and Rajesh Kumar
- Improvement Power System Stability Using Unified Power Flow Controller Based on Hybrid Fuzzy Logic-PID Tuning in SMIB System 815 Ravinder Kumar and Mahendra Kumar
- **EXAMPLE 2** Integration in the Physical World in IoT using Android Mobile Phones 820 *M. Thiyagarajan and Chaitanya Raveendra*
- Information System Audit: An Overview Study in E-Government of Nepal 827 Abhijit Gupta, Subarna Shakya
- **Real Time Internet Application with Distributed Flow Environment for Medical IoT** 832 *N. Boopala Krishnan, S. Siva Sankara Sai and Satya Brata Mohanthy*
- **Example 2** Statistical KPIs in HMI Panels 838 Karthik Ragunathan, Sampurna Ravindranathan and S. S. M. Naveen
- Digital Technology Actualizing Dialogue of International Relations in New Form 844 Rajendra Man Banepali, Subarna Shakya and Gajendra Sharma

Session 4.3	Sensor Webs (3)
Date/Time	Friday, 9 October 2015 / 16:00–18:00
Chair	Prof. Khyati Vachhani, Nirma University, India

- Nearest Cluster-based Compound Network Protocol Identification 849 Amol P. Bhagat and Kiran A. Dongre
- **Visual Cryptography for Image Privacy Protection using with Diverse Image Media** 855 Jyoti Rao and Vikram Patil
- **Trust Based Energy Efficient Coverage Preserving Protocol for Wireless Sensor Networks** 860 *Pooja Chaturvedi and A. K. Daniel*
- **Performance Evaluation of Different OFDM Transmission Schemes** 866 Sayanatani Ghosh and Sutanu Ghosh
- **Prevalent Criteria's in Regression Test Case Selection Techniques: An Exploratory Study** 871 *Priyanka Dhareula and Anita Ganpati*
- Prototype for Intelligent Ticketing System Using NFC 877 Anita Chaudhari, Brinzel Rodrigues, Pratap Sakhare and Caston Fernandes
- Various Schemes to Detect Selfishness in Wireless Ad-hoc Networks: A Survey 881 Priya P. Patel and Rutvij H. Jhaveri
- Multiresolution Analysis: An Unified Approach using Discrete Wavelet Transform on GNU Radio 887 Khyati Vachhani
- Simulation Study of Application Layer DDoS Attack 893 Barjinder Singh, Krishan Kumar and Abhinav Bhandari

Session 4.4	Big Data and Analytics (2)
Date/Time	Friday, 9 October 2015 / 16:00–18:00
Chair	Prof. Dr. S.K. Niranjan, SJCE, Mysore

- Ranking Based Prediction of Keyword Over Big Databases 899 Abhijeet Kothawade, Jagdish Bagul, Milan Harak and Bharati Patil
- Performance Evaluation of Fair and Capacity Scheduling in Hadoop YARN 904 Garima Sharma and Anita Ganpati
- Restaurant Recommender System Based on Psychographic and Demographic Factors in Mobile Environment 907
  - Rahul Kat Arya and Om Prakash Verma
- **Testing-Effort Function for Debugging in Software Systems and Soft Computing Model** 913 *M. Jahir Pasha, S. Ranjitha and H. N. Suresh*
- New Paradigm to Keyword Search: A Survey 920 Shilpa S. Laddha, Anurag R. Laddha and Pradip M. Jawandhiya
- **Real-time Prediction of Information Search Channel Using Data Mining Techniques** 924 *Gaurav Khatwani and Praveen Ranjan Srivastava*
- **Personalized and Relational Approach for Travel Package Recommendation** 930 *Komal Popat, Neha Rane, Tejaswini Thorat, Namrata D. Ghuse and Manisha Vidhate*
- Musical Instrument Identification Using SVM & MLP withFormal Concept Analysis 936 Swati D. Patil and Tareek M. Pattewar

Session 4.5	Image Processing & Pattern Recognition (3)
Date/Time	Friday, 9 October 2015 / 16:00–18:00
Chair	Prof. Unni Krishnan A, GIMT, Greater Noida

- **EXAMPLA 2** Human Face Recognition using Facial Feature Detection Techniques 940 *Ravi Subban and Savitha Soundararajan*
- Enhancement of Classification Accuracy of our Adaptive Classifier using Image Processing Techniques in the Field of Medical Data Mining 948 Sneha Chandra and Maneet Kaur
- Comparative Study Between Different Classifiers Based Speaker Recognition System Using MFCC for Noisy Environment 955 Abhilasha Sukhwal and Mahendra Kumar
- **Comparative Study of Artificial Neural Network Based Classification of IRS LISS-III Satellite Images** 961 Anand Upadhyay, S. K. Singh, Pooja Singh and Priya Singh
- **Face Recognition : A Template Based Approach** 966 *T. Archana and T. Venugopal*
- **Fruit Disease Detection using Color, Texture Analysis and ANN** 970 Ashwini Awate, Damini Deshmankar, Gayatri Amrutkar, Utkarsha Bagul and Samadhan Sonavane

- Comparative Study of Different Classifiers Based Speaker Recognition System Using Modified MFCC for Noisy Environment 976 Abhilasha Sukhwal and Mahendra Kumar
- Real-Time Robust Face Detection and Tracking using Extended Haar Functions and Improved Boosting Algorithm 981 Arundhati Das, Mameeta Pukhrambam and Ashim Saha
- **EXAMPLE 2** Semi Visible Watermarking Scheme Based on DWT and PCA 986 Anand Kumar and Mukesh Gupta
- **Facial Expression Recognition Using VFC and Snakes** 991 Neha Kulkarni, Snehal Kulkarni, Miteshwari Pardeshi, Prajakta Sanap and N. D. Ghuse
- **Comparison of Spatial Color Histograms Using Quadratic Distance Measure** 995 *Jyoti Narwade and Binod Kumar*

Session 5.1	Networking and Communication Protocols (3)
Date/Time	Saturday, 10 October 2015 / 11:00–13:00
Chair	Mr. Suyambulingam Rathinasamy Muthupandi, Samsung R&D Institute, India

- Placement of Relay Nodes in Wireless Sensor Networks 999 Ramya Sharma, Virender Ranga and Suneer Angra
- **Security Protocols for Wireless Sensor Networks** 1005 Monika Bhalla, Nitin Pandey and Brijesh Kumar
- Performance Analysis of AODV nthBR Protocol for Multimedia Transmission Under Different Traffic Conditions for Sparse and Densely Populated MANETs 1010 Meena Rao and Neeta Singh
- **S-AODV: An Adaptive Method for Improving AODV Protocol for WSN** 1016 *M. Shoba and Suresha*
- **Wireless Network Security: Tough Times** 1022 Utkarsh Wadhwa
- **Secret Data Transmission using Vital Image Steganography over Transposition Cipher** 1026 *Mamta Jain and Saroj Kumar Lenka*
- **A Review Study of Lightweight Proactive Source Routing Protocol for Mobile Ad Hoc Networks** 1030 *Rama Meena and Lokesh Tharani*
- **Certificateless Remote Anonymous Authentication Technique for Wireless Body Area Networks** 1035 *M. V. Korade, Reena Ahire, Divyashree Baviskar, Ankkita Bumb and Prachi Chhajed*

Session 5.2	Cloud Computing (2)
Date/Time	Saturday, 10 October 2015 / 11:00–13:00
Chair	Er. Nikhil L. Kulkarni, Sandip Institute of Technology & Research Centre, Nashik

**SchedCD: A Scheduling Algorithm for Cloud Computing in Data Centers** 1042 *Rehan Ahmad and Ash Mohammad Abbas* 

- **Discovering Execution of Real Time Tasks in Cloud Computing** 1048 Pankaj Deep Kaur and Kanu Priya
- An Optimal Service Selection Algorithm Based on QOS of Web Services 1054 Parul Khullar, Deepali Panwar and Ashish Sharma
- **Dyanimc Key based Authentication Scheme for Vehicular Cloud Computing** 1059 Manish Kumar Sharma, Rasmeet S. Bali and Arvinder Kaur
- **Energy Efficient Hybrid Policy in Green Cloud Computing** 1065 Yashi Goyal, Meenakshi S. Aryan and Sunil Nagpal
- **Data Sharing Security and Privacy Preservation in Cloud Computing** 1070 *Kadam Prasad , Jadhav Poonam, Khupase Gauri and N. C. Thoutam*
- Analysis of Open Source Cloud Infrastructures Over Cost Incurred by Closed Source Cloud Infrastructures 1076 J. Sharon Moses and L. D. Dhinesh Babu
- **EXAMPLE 1083** Implementing Chinese Wall Security Model for Cloud-based Services 1083 Srijita Basu, Anirban Sengupta and Chandan Mazumdar
- Fault Tolerance Techniques and Architectures in Cloud Computing"- A Comparative Analysis 1090 Pankaj Deep Kaur and Kanu Priya
- **Example 7** Identity Management in Hybrid Cloud 1096 Aarti Goel, Gaurav Gupta, Mayank Bhushan and Neha Nirwal
- **Study of Data Security and Privacy Preserving Solutions in Cloud Computing** 1101 Siddharth Dutt Choubey and Mohit Kumar Namdeo
- Efficient and Secured Approach for Faster Data Availability and Restoration in Disaster Cloud Data Management 1107

Aditi Tripathi, Mayank Deep Khare and Pradeep Kumar Singh

**A Novel Algorithm for Fault Tolerant Job Scheduling and Load Balancing in Grid Computing** Environment 1113

K. Jairam Naik, A. Jagan and N. Satya Narayana

Special Session 5.3	Communication Engineering and Technology (1)
Date/Time	Saturday, 10 October 2015 / 11:00–13:00
Chair	Prof. Durga Prasad Mohapatra, National Institute of Technology Rourkela, India

- **Novel Design of Duplexer for S band Applications** 1119 Monika Tanwani, Rajendra Singh Chauhan and Kiran P. Singh
- Dual Band Slotted Antenna with DGS 1124 Monika Tanwani, Ravindra Singh Chauhan and Kiran P. Singh
- **Novel Design of Patch Antenna for C Band Applications** 1129 Shivani Soni, Kundan Singh Rathore and Kiran P. Singh
- **Design of a Slotted Reconfigurable Patch Antenna for Present-G Wireless Communication** 1134 Nidhi Pandit, Purnima Sharma, S. K. Jha and P. P. Bhattacharya
- **Characterization and Comparison of Distributed Denial of Service Attack Tools** 1139 Harjeet Kaur, Sunny Behal and Krishan Kumar

Loss Reduction in Antenna for with Feedline 1146 Monika Tanwani, Ravindra Singh Chauhan and Kiran P. Singh

Performance Enhancement of a Malware Detection System using Score Based Prioritization of Snort Rules 1150

Pritpal Singh, Sunny Behal and Krishan Kumar

**Extensive Game Model for Concurrent Routing in Wireless Sensor Network** 1156 Benazir Salma Jamin, Mainak Chatterjee and Tuhina Samanta

Special Session 5.4	Wireless Communications Engineering and Technology
Date/Time	Saturday, 10 October 2015 / 11:00–13:00
Chair	Er. Anand Nayyar, KCL Institute of Management & Technology, Jalandhar

- Performance Improvement of Max-Log-MAP Turbo Decoding Algorithm using Optimized Scaling Factor for Image Transmission and Retrieval 1161 *M. Balasingh Moses and N. S. Pradeep*
- **EXAMPLE 1168** Implementation Cost & Performance Analysis of Pulse Shaping Filter 1168 Priyanka Agrawal, Rajesh Mehra and Monika Singh
- WSN in Spice Cultivation 1173 Ravi Kishore Kodali and Anupama Muraleedhar
- **Performance Evaluation of Multiuser MIMO Detection Techniques** 1178 Soma Umamaheshwar, Tipparti Anil Kumar and K. Srinivasa Rao
- **Performance Evaluation of Cooperative Relay Assisted Transmission Models in LTE System** 1184 *Patteti Krishna, Kalitkar Kishan Rao and Tipparti Anil Kumar*
- **A Comparative Study of Reducing Mutual Coupling Between Two Novel UWB Antennas** 1189 Indranil Acharya and Saminur Rahman

Session 5.5	Signal Processing & Sensor Web
Date/Time	Saturday, 10 October 2015 / 11:00–13:00
Chair	Prof. Dr. S.K. Niranjan, SJCE, Mysore

- **Epileptic Seizure Prediction and Identification of Epileptogenic Region using EEG Signal** 1194 *Aarti Sharma, J. K. Rai and R. P. Tewari*
- **Swarm Intelligence Based Computing Techniques in Speech Enhancement** 1199 *Khumukcham Usharani Devi, Dipjyoti Sarma and Romesh Laishram*
- **Everaging the SIP Load Balancer to Detect and Mitigate DDos Attacks** 1204 *Abdullah Akbar, S. Mahaboob Basha and Syed Abdul Sattar*
- Analysing EEG Signals for Detection of Mind Awake Stage and Sleep Deprivation Stage 1209 Mukesh Choubisa and Prakriti Trivedi

#### Haptics-Human Interaction and Surface Simulation 1212

Ashwini, Manoj, Deepti, Kiran, Nalini C. Iyer and Raghavendra M. Shet

Session 6.1	Green Computing (3)
Date/Time	Saturday, 10 October 2015 / 14:00–15:30
Chair	Prof. Durga Prasad Mohapatra, National Institute of Technology Rourkela, India

- Multilevel Inverter based Single Stage Grid Connected Solar PV 1217 A. Sarkar, S. Reddy, B. Das, P. R. Kasari, A. Saha and A. Chakrabarti
- Nanotechnology for Solar and Wind Energy Applications : Recent Trends and Future Development 1223 Sibu Sam John, Pravesh Malviya, Nitish Sharma, Vijay K. Manjhi and K. Sudhakar
- Modified Danger Theory based Optimized Artificial Immune Network on Resiliency in Cyber-Physical System 1228

M. R. Lokesh and Y. S. Kumaraswamy

- Smart Cities and Smart Homes: From Realization to Reality 1236 Siddharth Mehrotra and Rashi Dhande
- **Robotics The Roadmap to a Digital Life** 1240 *Mohd. Rayyan and Arunima Jaiswal*
- **Task Scheduling in Grid Computing using Genetic Algorithm** 1245 *Ujjwal Prajapati and Subarna Shakya*

Session 6.2	Machine Learning (2)
Date/Time	Saturday, 10 October 2015 / 14:00–15:30
Chair	Mr. Nitin Agrawal, Maruti Suzuki Ltd., Gurgaon

- **Example 7** Low Cost Self Powered Sand Rover System for Desert Region Surveillance 1249 *K. Yokesh, S. Karthik, Y. M. Jagadeesh and R. K. Sathiendran*
- Navigation Aiding Stick for the Visually Impaired 1254 Nishant Banat James and Ashish Harsola
- **Design Development and Implementation of Wired Nurse Calling System** 1258 Chaman Sharma and Deepak Kumar Gautam
- **The Application of Cosine Transform and Principal Components for Foreground Detection in Video** 1263 *R. Amith, V. N. Manjunath Aradhya and S. K. Niranjan*
- **Performance Analysis of Power Rotational Interleaver in Acostic Environment** 1266 Prachi Tripathi and Manoj Kr Shukla

Session 6.3	Eco-friendly Computing & Communication Resources (2)
Date/Time	Saturday, 10 October 2015 / 14:00–15:30
Chair	Dr. Om Prakash Sangwan, Guru Jambheshwar University of Science & Technology, Hisar

- **Maximization of Energy Efficiency in Wireless Multi-hop Networks** 1272 *Hia Ghosh and Keshaw Dewangan*
- **Surveillance and Monitoring System Using Raspberry Pi and SimpleCV** 1276 Virginia Menezes, Vamsikrishna Patchava and M. Surya Deekshith Gupta
- **EXAMPLE 1279** Implementation of Reversible Data Hiding In Encrypted Image Using A-S Algorithm 1279 Aswin Achuthshankar, Aswathy Achuthshankar, K. P. Arjun and N. M. Sreenarayanan
- Single Phase AC Drive for Isolated Solar Photovoltaic Water Pumping System 1285 Jyoti H. Ugale and M. S. Panse
- Ranking Software Quality Factors Using Intuitionistic Preference Relations and Group Decision Making 1288 Ritu Shrivastava
- **Spectrum Hand off in Cognitive Radio Network using Dynamic Threshold** 1292 *Shashi Bhushan, Rasmeet S. Bali and Akwinder Kaur*

Session 6.4	Internet of Things (3)
Date/Time	Saturday, 10 October 2015 / 14:00–15:30
Chair	Mr. Sanjiv Bansal, Group Manager, ST Micro Electronics Ltd.

- **Mobile Attendance using Near Field Communication and One-Time Password** 1298 *John Jacob, Kavya Jha, Paarth Kotak and Shubha Puthran*
- Low Cost Realization of Square and Square Multiplication Operations Using Toffoli Gates 1304 Jitesh Kumar Meena, Chotu Lal, Hitesh Gupta and Sushil Chandra Jain
- Internet of Everything Smart Environment 1309 Siffi Singh and Kirti Mittal
- **A Review on Recent Phishing Attacks in Internet** 1312 Lakhita, Surendra Yadav, Brahmdutt Bohra and Pooja
- **Example 7** Location based Advertisement Publishing by using Wi-Fi and QR codes 1316 *Pankaj D. Virulkar and Avinash N. Bhute*
- **Design and Implementation of an Ad Hoc Network among Android Smart Devices** 1322 *Tanweer Alam and Mohammed Aljohani*

**Improving Performance of Internet of Things by using Local IOT Controller Unit** 1328 Sushma Satpute and Bharat Sing Deora

Session 6.5	Data Mining (2)
Date/Time	Saturday, 10 October 2015 / 14:00–15:30
Chair	Prof. Bhawna Mallick, Galgotias College of Engineering & Technology

- A Proposed Framework to Optimize the Query by Filtering Noise Using Semantic Information Processing 1331 Neha Gulati and Atul Garg
- **Template Creation to Merge Disparate Software Solutions by Adapting Software Engineering Principles** 1339 Nazneen Ansari and Gopakumaran Thampi
- **Educational Data Mining Techniques and Their Applications** 1344 *John Jacob, Kavya Jha, Paarth Kotakand Shubha Puthran*
- **EXAMPLE 1349** Implementation of Dual Security Through DSA and Audio Steganography 1349 Natasha Taneja and Prinima Gupta
- **Search Model for Searching the Evidence in Digital Forensic Analysis** 1353 *Sweedle Mascarnes, Prajyoti Lopes and Pratap Sakhare*
- **Constitution Search using Reverse K-Mean Clustering & GSM Communication** 1359 *Asmita Singh and Devendra Somwanshi*
- Frequent Itemset Mining for Big Data 1365 Kiran Chavan, Priyanka Kulkarni, Pooja Ghodekar and S. N. Patil
- **Enabling Multi-level Trust in Privacy Preserving Data Mining** 1369 Shahejad Khan, Tejas Gorhe, Ramesh Vig and Bharati A. Patil
- **A Review Study of Server Log Formats for Efficient Web Mining** 1373 Pratibha Sharma, Surendra Yadav and Brahmdutt Bohra
- Survey on Selenium Tool in Software Testing 1378 Insha Altaf, Jawad Ahmad Dar, Firdous ul Rashid and Mohd. Rafiq

Session 7.1	Power-aware Algorithms and Protocols (2)
Date/Time	Saturday, 10 October 2015 / 16:00–18:00
Chair	Dr. Sangharatna Godboley, National Institute of Technology Rourkela

- **Relay Node Placement Techniques in Wireless Sensor Networks** 1384 Abhishek Verma, Virender Ranga and Suneer Angra
- **Five Staged Pipelined Microprocessor with Self Clocking Mechanism** 1390 Anish Gupta, Vinayak Kini, Chirag Bafna and Prathik Shetty
- **EXAMPLE 2** Improved Authentication Scheme using Password enabled Persuasive Cued Click Points 1394 Neha Singh and Nikhil Bomanwar

- **Fuel Level Management in Automotive System: Solving Fuel Sloshing Issues** 1399 Deepak Kumar Gautam, Garv Modwel, Amit Kumar and Ajay Tiwari
- Using Gem5 Simulator and DineroIV Cache Simulator to analyse TLB and Cache Statistics with Multi Threaded Parsec Benchmarks 1402 Avani Sharma and Anay Jain
- SPIN based Hybrid Multi Hop Clustering Scheme 1407 Divyansh Chauhan, Rajat Asthana, Vilsan Gupta and Rakesh Kumar
- Hardware Implementation and Reduction of Artifacts from ECG Signal N/A Aman Gupta and U. M. Chaskar
- **Design and Simulation of Energy Efficiency in Node Based on MQTT Protocol in Internet of Things** 1413 Mohsen Hallaj Asghar and Nasibeh Mohammadzadeh
- **Modified Dual Three-Pulse Modulation Technique for Single-Phase Inverter Topology** 1418 *N. R. Sree Harsha, G. S. Anitha and A. Sreedevi*
- **A Survey of Various Energy Efficient Secure Routing Approaches for Wireless Ad-hoc Networks** 1424 Sachi N. Shah and Rutvij H. Jhaveri

Session 7.2	Cloud Computing (3)
Date/Time	Saturday, 10 October 2015 / 16:00–18:00
Chair	Prof. Subarna Shakya, Tribhuvan University, Nepal

- **Passenger Demand Prediction on Bus Services** 1430 *Chunjie Zhou, Pengfei Dai and Zhenxing Zhang*
- Securing Data Transmission Over Wireless LAN (802.11) by Redesigning RC4 Algorithm 1436 Shenam Chugh and Kamal Dhanda
- **A Novel and Efficient Approach to Encrypt Images Using Chaotic Logistic Map and Stream Cipher** 1442 Manju Rani and Sudesh Kumar
- **Security Challenges in Cloud** 1448 Sonal Shukla, Surrendra Yadav and Bhramdutt Bohra
- **Performance Analysis of Guest VM's on Xen Hypervisor** 1452 Anchal Pokharana and Rahul Hada
- Survey on Security Concerns in Cloud Computing 1458 R. Patil Madhubala
- **The Rise of Bring Your Own Encryption (BYOE) for Secure Data Storage in Cloud Databases** 1463 *Sadia Syed and M. Ussenaiah*
- **Secret Data Sharing in Cloud Environment Using Steganography and Encryption Using GA** 1469 Subhasish Mandal and Souvik Bhattacharyya
- **Example 2** Storage Cost Efficient Approach for Cloud Storage and Intermediate Data Sets in Clouds 1475 *Mayank Deep Khare, Aditi Tripathi and Pradeep Kumar Singh*
- **EXAMPLE 2** Identity and Access Management A Comprehensive Study 1481 *Anuja Sharma, Sarita Sharma and Meenu Dave*
- Cloud Computing Data Breaches A Socio-technical Review of Literature 1486 David Kolevski and Katina Michael

Data Outsourcing: A Threat to Confidentiality, Integrity, and Availability 1496 Malay Kumar, Jasraj Meena and Manu Vardhan

**Risk Based Access Control in Cloud Computing** 1502 *H. Lakshmi, S. Namitha, Seemanthini, Satheesh Gopalan, H. A. Sanjay, K. Chandrashekaran and Atul Bhaskar* 

Session 7.3	Big data & Cloud Computing
Date/Time	Saturday, 10 October 2015 / 16:00–18:00
Chair	Dr. Pinaki Chattopadhyay, Data Scientist, IBM

- **EXAMPLY 1506** Analytical Literature Survey on Existing Load Balancing Schemes in Cloud Computing 1506 Garima Rastogi and Rama Sushil
- **A Survey of Implicit Trust on Social Networks** 1511 Anuradha Yadav, Shampa Chakravertya and Ritu Sibal
- Towards the Formalization of Road Traffic Management System for Safety Critical Properties by Z Notation 1516 Monika Singh, A. K. Sharma and Ruhi Saxena
- **A Dynamic Approach for Fault Tolerance with Voltage Scaling** 1522 Arvind Kumar and Bashir Alam
- Role of Steganography in Big Data 1526 Pooja, Surendra Yadav, Brahmdutt Bohra and Lakhita
- **Comparative Study of Various Backup and Monitoring Techniques** 1530 *Rumaisa Akbar, Mohd. Shahid Husain and Mohammad Suaib*
- **Static Code Analysis and Detection of Multiple Malicious Java Applets using SVM** 1538 *Sapana Y. Salunkhe and Tareek M. Pattewar*
- **Spherule Diagrams: A Matrix-based Set Visualization Compared with Euler Diagrams** 1543 *Mithileysh Sathiyanarayanan and Donato Pirozzi*
- **Wulticore Efficient Scheduling for Operating System to Avoid Congestion in Client-Server Architecture** 1549 Anchal Thakur and Ravinder Thakur
- **Wulti User Searchable Encryption Schemes using Trusted Proxy for Cloud based Relational Databases** 1554 *Kurra Mallaiah, S. Ramachandram and Rishi Kumar Gandhi*

Session 7.4	Internet of Things (4)
Date/Time	Saturday, 10 October 2015 / 16:00–18:00
Chair	Dr. Rajiv Kumar Shakya, Galgotias College of Engineering, India

Smart Health Monitoring System for Animals 1560 Anushka Prafullkumar Patil, Rohini Shivaji Tambe, Chetana Jayawant Pawar and Neha Suresh Patil

**Reconfigurable Single and Dual Band Microstrip Patch Antenna for Satellite Communications** 1565 Rachana Yadav, Sandeep Kumar Yadav and Indra Bhooshan Sharma

- **DANE: An Inbuilt Security Extension** 1571 C. Aishwarya, M. A. Raghuram, Sachin Hosmani, M. S. Sannidhan, Balaji Rajendran, K. Chandrasekaran and B. S. Bindhumadhav
- Internet of Things(IoT): Security Challenges, Business Opportunities & Reference Architecture for Ecommerce 1577 Sachchidanand Singh and Nirmala Singh
- **Characteristics of Home Automation Devices (LED Bulbs)** 1582 Sujeet Pandey, Arnab Paul and Laishram Jenny Chanu
- **Smart System: IoT for University** 1586 Kamlesh Shatma and T. Suryakanthi
- **Compact Dual Band Antenna for IOT Applications** 1594 Sonali Katoch, Harshita Jotwani, Shuchismita Pani and Asmita Rajawat
- **Wultimedia Enabled Virtual Classroom for Distance Education** 1598 *Vivian Brian Lobo and Nazneen Ansari*
- Negative Pressure Wound Therapy Impact on Fast Recovery in Major and Minor Surgery Recovery Time 1604 Ravinder Kaur, Manpreet Kaur and Jaspreet Kaur
- Low Cost Cataract Detection System Using Smart Phone 1607

Manpreet Kaur, Jaspreet Kaur and Ravinder Kaur

Session 7.5	Image Processing & Pattern Recognition (4)
Date/Time	Saturday, 10 October 2015 / 16:00–18:00
Chair	Dr. Vijay Katiyar, Maharishi Markendeshwar University, Mullana

- **Text Recognition from Image Using Artificial Neural Network and Genetic Algorithm** 1610 Mohit Agarwal and Baijnath Kaushik
- Next State Prediction Algorithm for the Avionic Systems using the Hidden Markov Models 1618 M. R. Lokesh and Y. S. Kumaraswamy
- **Prototype for Signature Verification System using Euclidean Distance** 1624 Brinzel Rodrigues, Anita Chaudhari, Pratap Sakhare and Dimpy Modi