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- **Personalized and Relational Approach for Travel Package Recommendation** 930 *Komal Popat, Neha Rane, Tejaswini Thorat, Namrata D. Ghuse and Manisha Vidhate*
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Chair	Prof. Unni Krishnan A, GIMT, Greater Noida

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- 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
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Chair	Mr. Suyambulingam Rathinasamy Muthupandi, Samsung R&D Institute, India

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- **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*

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- **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
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- **Energy Efficient Hybrid Policy in Green Cloud Computing** 1065 Yashi Goyal, Meenakshi S. Aryan and Sunil Nagpal
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- Analysis of Open Source Cloud Infrastructures Over Cost Incurred by Closed Source Cloud Infrastructures 1076 J. Sharon Moses and L. D. Dhinesh Babu
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- 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

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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

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

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- 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
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- **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

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- **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

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Chair	Prof. Durga Prasad Mohapatra, National Institute of Technology Rourkela, India

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- 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

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- 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*

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Chair	Mr. Nitin Agrawal, Maruti Suzuki Ltd., Gurgaon

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- 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*
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- **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
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- 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
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Chair	Prof. Bhawna Mallick, Galgotias College of Engineering & Technology

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- **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*
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- Survey on Selenium Tool in Software Testing 1378 Insha Altaf, Jawad Ahmad Dar, Firdous ul Rashid and Mohd. Rafiq

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Chair	Dr. Sangharatna Godboley, National Institute of Technology Rourkela

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- **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
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- **Design and Simulation of Energy Efficiency in Node Based on MQTT Protocol in Internet of Things** 1413 Mohsen Hallaj Asghar and Nasibeh Mohammadzadeh
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- **A Survey of Various Energy Efficient Secure Routing Approaches for Wireless Ad-hoc Networks** 1424 Sachi N. Shah and Rutvij H. Jhaveri

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- **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
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- **The Rise of Bring Your Own Encryption (BYOE) for Secure Data Storage in Cloud Databases** 1463 *Sadia Syed and M. Ussenaiah*
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- **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*
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- **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
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