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key exchange protocols are developed for exchanging key between two parties, many applications do necessitate the need of swapping over a secret key among group of parties. In existing technique each communicating party has to synchronize with other. So, if there are n parties then total number of synchronizations needed is O(n2). This is quite computationally complicated especially in wireless communication where the computational power and the resource constrain is a major issue. GTHLP technique of this paper eliminates all the above stated drawbacks of the existing technique. GTHLP introduces Grouped Triple Hidden Layer Perceptron (GTHLP) synchronization mechanism for offering synchronization of group of parties. Here a key swap over by synchronization among cluster of THLP has been proposed which is a fresh addition to the field of cryptography. The proposed technique implements the key swap over technique with the help of complete binary tree framework which makes the technique scales logarithmically with the number of parties participating in the key swap over protocol. Two parties can swap over a common key using synchronization between their own CTHLP. But the problem crop up when group of n parties desire to swap over a key. Using proposed technique a set of n parties can be able to share a common key with only O(log2 n) synchronization steps. This is logarithmic complexity and feasible in wireless communication with limited amount of resources. Here, CGTHLP based synchronization is performed for tuning of group of parities by placing on the complete binary tree framework. Synchronization initiated between nodei and nodej to construct a common seed value at both sides. The synchronized identical seed value is used to generate the common input vector for nodei and nodej. Two GTHLPs one at nodei and another at nodej start with identical input vector and anonymous random weight vector. In each time both THLPs compute their final output based on input and weight vector, and communicate to each other. If both are be in agreement on the mapping between the present input and the output, their weights are updated according to an appropriate learning rule. After synchronization procedure of all parties (nodes in a complete binary tree) in the group weight vector of the group THLPs become identical. These indistinguishable weight vector forms the session key for a particular session. Authentication steps also get performed parallel to the synchronization steps. This synchronized network can be used for transmitting message using any light weight encryption/decryption technique with the help of session key of the synchronized network.

10:30 - 11:00	Coffee Breaks

11:00 - 12:00	**Session 1: Internet Of Things IOT, Cloud Computing CC** Room: **Session Chair: Professor Vivek S Deshpande** **VIT College of Engineering, Pune, India**

IoT based Grocery Monitoring System'"''3
by Hardi *Desai, Divya Guruvayurappan, Mustafa Merchant, Smeet Somaiya, Hetal Mundra*

Internet of Things based Vehicle Monitoring System'"''7
by *Mayuresh Desai, Arati Phadke*

Secure Online Encryption with Partial Data Identity Outsourcing: An Exemplar for Cloud Computing'"'':
by *Rajani S. Sajjan, Vijay R. Ghorpade*

12:00 - 1:30	Lunch

2:00 - 3:30	**Session 2: Simulation, Modeling and Analysis and Performance SMAP, Arch.** **Devices, security and Privacy ADSSP**

Room: **Session Chair: Prof. Dr. Mandal** **Department of Computer Science & Engineering,** **Ex-Dean, Faculty of Engineering Technology & Management, Kalyani University**

Performance Comparison of Hybrid Wavelet Transform-I Variants and Contrast Limited Adaptive Histogram Equalization Combination for Image Enhancement"""38
by *Vinayak Ashok Bharadi, Latika Padole*

Comparative Analysis of Optimization Techniques for Optimizing the Radio Network Parameters of Next Generation Wireless Mobile Communication"""46
by *Sarosh Dastoor, Upena Dalal, Jignesh Sarvaiya*

Performance Evaluation and QoS Analysis of PDCH and MBC Routing Protocols in Wireless Sensor Networks"""52
by *Sangeeta Vhatkar, Archana Nanade, Mohammad Atique*

Cued Click Authentication ""57
by *Shaikh Saubiya Ahmed S., Narendra M. Shekokar*

3:30 - 4:00	Coffee Breaks

4:00 - 5:15	**Session 3: ONTS, Optical Communications and Networking OCN and OPA** Room: **Session Chair: Assistant Professor Indrajit Bhattacharya** **Department of Computer Applications, Kalyani Government Engneering College, Kalyani, Nadia**

Optimising Gateway Selection Using Node Lifetime and Inter-Node Interference in Cluster-based MANETs"""62
by *Kaustubh Nabar, Govind Kadambi*

Analytical Performance Study of Multiple Packets Reception Capabilities for Network Interfaces in WDM LANs"""67
by *Peristera Baziana*

Performance Enhancement Conditions in WDM LANs with a Separate Control Wavelength"""72
by *Peristera Baziana*

High Contrast All-Optical XOR Gate with T-shaped Photonic Crystal Waveguide using Phase based Interference"""77
by *Enaul haq Shaik, Nakkeeran Rangaswamy*

Design and Simulation Comparison of Gain and Noise Figure of Double Pass Configurations Using Experiment, Matlab and Optisys"""7:
by *Belloui Bouzid and Fawwaz Abu Khadra, Abdullah AlOrainy*

Banquet Dinner by Invitation

25th of FEB 2017

Time	Oral Sessions
9:30 - 10:30	

Keynote Speakers/ Invited Talk

Title: Approximation for Minimum Connected Dominating Sets in Wireless Ad hoc and Sensor Network

Dr. Anil K Yadav

Assistant Professor Computer Application Department

University Institute of Engineering & Technology

Biography:
Dr. Anil K Yadav is Asst. Professor and Head Computer Application Department at University Institute of Engineering & Technology, C.S.J.M University, Kanpur, India since October 2005. He is a member of Board of Studies of Computer Application, MTech (CSE) and Academic Council of C.S.J.M University, Kanpur. He obtained MTech from GGSIP University Delhi and Ph.D. in Computer Science and Engineering from MNNIT Allahabad. He has authored one Book entitled "Connected Dominating Set: Theory and Experimental Study" by LAMBERT Academic Publishing, Germany. His research interests are graph algorithm for ad hoc and sensor networks, combinatorial optimization and big data analytics. He is a recipient of various Travel Fellowship to present, participant in National and International Conferences. He is a reviewer of International Journals like IEEE Sensor Networks and International Journal of Electronics (Taylor and Francis) and TPC of various International Conferences. He is life member of Computer Society of India and serving in the capacity of Vice Chairman CSI Kanpur chapter. For more information, please visit www.uietkanpur.org.

Abstract:
Researcher and engineers always want faster and faster computing devices, and in general faster devices require more energy. With increasing energy costs, there is an urgent need for energy-efficient computing in Wireless ad hoc and sensor networks at many different levels. This talk focuses on energy-aware resource management in heterogeneous centralized, parallel and distributed computing systems. We address the problem by approximation, generating efficient minimum Connected Dominating Set in wireless ad-hoc networks. The execution time and energy consumption of each node is based on how the task's computational requirements interact with the node's capabilities. We have designed models for defining, deriving, and quantifying the degree of robustness of a node behavior using stochastic (probabilistic) information about the execution times of tasks on different nodes. We provide an analysis framework that will allow a system to investigate the tradeoffs between minimum and maximum dominating set and maximizing the computing performance (utility) achieved by a system. The CDS approaches presented can be

applied to a variety of computing and communication system environments, including centralized, parallel, distributed, cluster, wireless ad hoc and sensor networks. Furthermore, the approaches can be used with many different system performance metrics and constraints. This talk is intended for undergraduate, postgraduate students, research scholar, faculty and scientists who want to learn how to model and manage resources in parallel and distributed computing systems with energy-aware. In particular, energy can be used as a constraint when trying to optimize a system computing performance metric, or energy can be optimized while meeting a computing performance constraint goal.

10:30 - 11:00	Coffee Break

11:00 - 12:15	**Session 4: Mobile and Wireless Communications WCN** Room: **Session Chair: Assistant Professor Dr. Anil Yadav** **Computer Application Department, University Institute of Engineering & Technology C.S.J.M University Kanpur**

Relay Node Placement to Establish Full Connectivity in Directional Sensor Networks"""84
by *Saunhita Sapre, S. Mini*

Traffic Congestion Detection with Complex Event Processing in VANET"""89
by *Priyanka G. Shinde, Manoj M. Dongre*

Frame Management in Wireless Networks"""94
by *Gustavo Pereira Mateus, Beatriz Wilges, Mario Antônio Ribeiro Dantas, Silvia Modesto Nassar*

2:00 - 3:15	**Session 5: Simulation, Modeling and Analysis and Performance SMAP, UWB RFID** Room: **Session Chair: Prof. Dr. Prakash Vyavahare** **Professor and Head, Senior Member IEEE** **Department of Electronics and Telecomm. Engg., S. G. S. Institute of Technology and Science**

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by *Satyen Amonkar, Nandan Doddihal, Tanvi Gangan, Chintan Pasad, Gresha Bhatia*

Android Mobile App Development of Neural Networks for Performance Parameters Computation of Microstrip Antennas"""; 2
by *Kodur Krishna Chaitanya, Anshujit Sharma, Taimoor Khan, Salam Thoithoi Singh, Kanchan Kumar*

A Compact Ultra Wide Band Antenna Using Slots For Internet of Things Applications"""; 8
by *Raksha S. Sherke, Prachi C. Kamble, Lakshmappa K Ragha*

Performance Evaluation of MIMO-OFDM Systems using MRC and EGT for Wireless Channels"""322

by *Manisha Mishra, B.K. Mishra*

3:30 - 4:00	Coffee Break

4:00 - 5:15	**Session 6: Application of Information and Communications Technologies AICT, E - and - M Commerce** Room: **Session Chair: Professor Peristera Baziana** **National Technical University of Athens, Greece**

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Hybrid Wavelet Transform I and II Combined with Contrast Limited Adaptive Histogram Equalization for Image Enhancement"""333
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by *Aaditya Ajit Desai, Sunil Rai*

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by *Megharani Patil, Madhuri Rao*

End of Program