Proceedings of the

2015 IEEE 3rd International Conference on MOOCs, Innovation and Technology in Education (MITE)

October 1 – 2, 2015
Amritsar College of Engineering and Technology
Amritsar, Punjab

IEEE Part Number: CFP1574W-USB
ISBN: 978-1-4673-6746-2

Technical support & inquiries
Research Publishing Services
t:+65-6492 1137; f:+65-6747 4355
e:enquiries@rpsonline.com.sg

Copyright and Reprint Permission: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Operations Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved. Copyright ©2015 by IEEE.

Message from General Chair

Good engineering education is a key to the progress, strength and development of any nation. It is more relevant to India as we face many issues related with different domains of human life. We need different solutions who can work in the local context. Transforming Engineering Education will be the backbone of such change which will induce vibrancy, innovation and new jobs in India. For this to happen we need to work on three things. 1. Faculty 2. Faculty 3. Faculty Rest will follow automatically. Faculty needs cutting edge training in their own domain of research and teaching apart from training in the educational technology and pedagogy. We need to set up world class training centers which with modular and flexible human resources as well as infrastructure. We need to create groups of excellence in core engineering and science areas which are spread evenly in all parts of India. Accreditations and Reviews may be helpful but will only serve the partial purpose unless we create the world class human resources who are running these Engineering Institution. Administrators of these institutions are require specialized training as many of them are too naive to run these institutions professionaly with the world vision.

Committees

Steering Committee

Dr. Deepak Garg, *Chair, IEEE Education Society, India Council*
Prof. Russ Meier, *Milwaukee School of Engineering, USA*
Prof. Rob Reilly, *Past Chair, IEEE Education Society*

Chief Patron
Sh. Amit Sharma

Patrons
Dr Rajneesh Arora
Mrs. Ragini Sharma
Dr. V.K. Banga

General Chair
Dr. Deepak Garg, *Chair, IEEE Computer Society, India Council*

General Co-Chair
Dr. Gaurav Tejpal, *ACET Amritsar*

Publication Chair
Prof. Mahadevan Ramachandran

Workshop Chair
Dr. S.B.S. Kalsi, *Prof, DME, ACET Amritsar*

Workshop Co-Chair
Dr. Tanupreet Singh , *(Head, ECE), ACET Amritsar*
Mr. Sandeep Kad, *(Head, CSE), ACET Amritsar*

Organizing Secretary
Dr. S.B.S. Kalsi, *Prof, DME, ACET Amritsar*

Conveners

Mr. P.S. Pannu, *Associate Prof, DME, ACET Amritsar*
Mr. Amandeep Singh Bhui, *Assistant Prof, DME, ACET Amritsar*
Mr. Manoj Agnihotri, *Assistant Prof, CSE, ACET Amritsar*
Mr. Atul Mahajan, *Assistant Prof, ECE, ACET Amritsar*

Technical Program Committee/Advisory Committee
Anu A. Gokhale, *Illinois State University, USA*
Dr. Vandana Sharma, *Pornima Group of Colleges, Jaipur*
Dr. Anil Kumar Dahiya, *Modi Institute of Technology, Sikar*
Dr. Manoj Manuja, *Manager Education and Research Infosys*
Prof H R Vishwakarma, *Senior Professor VIT Vellore*
Dr. Puneet Goyal, *Graphic Era University*
Rajashree Jain , *Symbiosis International University, Pune*

M Kumar, *Senior Technical Officer, C-DAC Hyderabad*
Dr. Ashvini chaturvedi, *Associate Professor, NIT Surathkal*
Dr. Aniruddha Bhattacharjya, *Amrita School of Engineering, Banglore*
Dr Varun Dutt, *IIT Mandi*
Dr. Rajeeb Dey, *IIT Kharagpur*
Dr. D.P.Sharma, *Associate Professor, Manipal University Jaipur*
Dr. Amit Srivastava, *Assistant Professor, Jaypee University, Noida*
Prof. Ravi Kiran, *Thapar University, Patiala*
Dr. P. Sanjeevikumar, *NIT Puducherry*
Mrs. Barnali Dey, *SMU, Sikkim*
Prof. Amardeep Singh, *Punjabi University, Patiala*
Dr. Major Singh, *SLIET, Longowal*
Dr. S Vishwanadha Raju, *JNTU, Kakinada*
Dr. Shivani Goel, *Thapar University, Patiala*
Prof. Ajay Rana, *Amity University*
Prof. Rajesh Prasad, *AKGEC, Ghaziabad*
Prof. Latika Singh, *ITM University, Gurgaon*
Prof. Ridhima Jain, *GIET, Udaipur*
Dr.S.Hariharan, *TRPEC, Tamilnadu, India*
Prof. J K Mandal, *University of Kalyani, WB*
Dr. Rajeev Agrawal, *North Carolina A&T State University, USA*
Prof. Sigurd Meldal, *San Jose State University, California, USA*
Dr Annappa, *NIT Surathkal*
Prof. Atul Negi, *IEEE Hyderabad Section*
Dr. Ram Gopal Gupta, *Director, NIC, New Delhi*
Mr. Srini Ramaswamy, *ABB , Banglore*
Prof. Satish Kumar Peddoju, *IIT Roorkee*
Prof. Manik Lal Das, *DAIICT, Gandhinagar*
Mr. Jyotirmoy Saikia, *Synopsys, Banglore*
Mr. Piyush Javeria, *TINJRIT, Udaipur*
Dr Ankur Gupta, *MIET, Jammu*
Dr Karan Singh, *Gautam Budha University, Noida*
Dr Shom Prasad Das, *NIST, Odisha*
Dr Amit Kumar Pandit, *SMVD University, Jammu*
Mr Kuldeep Sharma, *Thapar University, Patiala*
Dr Neeraj Nehra, *Thapar University, Patiala*
Dr Mayank Singh, *THDC, Tehri*
Dr Dinesh Goyal, *SGVU, Jaipur*
Dr Jessie Walker, *University of Arkansas at Pine Bluff*
Dr Geeta RB, *GMRIT Rajam*
Dr Prateek Bhatia, *Thapar University, Patiala*
Dr Durgesh K Mishra, *SAITR, Indore*
Prof S Palani, *SEC, Trichy*
Prof. Chandrasekaran Subramaniam, *KCT, Coimbatore*
Prof. B M Kalra, *AKGEC, Ghaziabad*
Prof. Prabha Sharma, *ITM University, Gurgaon*
Prof. Kanwaljeet Singh, *Punjabi University, Patiala*
Mr. Aditya Sharma, *Tata Consultancy Services,India*
Mr. Hemchandra Bhatt, *Wipro Technologies,India*
Mr. Mohan K. S. R., *Wipro Technologies,India*
Dr.. Adarsh Garg, *Wipro Technologies,India*
Dr. R. Dattakumar, *Wipro Technologies,India*
Dr. Rajneesh Arora, *VC, PTU, Kapurthala*
Prof. Sanjay Jasola, *VC, GEHU, Dehradun*
Dr. Suresh H. Jangamshetti, *BEC Bagalkot, Karnataka*
Dr Ritu Soni, *GNGC, Haryana*

M Syamala Devi, Panjab University, Chandigarh
Pradyumn Nand, *IIIT Delhi*
Abhishek Shukla, *AP RDEC, Ghaziabad*
Anand Nayyar,AP, *KCLIMT, Jalandhar*
Chintan M Bhatt, *AP, CHARUSAT, Gujrat*
Dr. Rajiv Pandey, *Amity University LucknowFarish CV, Webmaster Region 10, IEEE*
Dr Prakash Goteti, *Sr Manager , Technical Learning Services , Tech Mahindra*
Dr. Seema Verma, *Banasthali Vidyapeeth*
Dr. Amod Kumar, *Director CSIO, Chandigarh*
Prof. M. P. Poonia, *Director, NITTTR Chandigarh*
Dr. Buta Singh, *Dean PTU, Jalandhar*
Dr. A.P. Singh, *Dean PTU, Jalandhar*
Dr. P.K. Sahoo, *IAER, UPES, Dehradun, Uttra Khand*
Dr. J. Karthikeyan, *ASB Industries Inc., USA*
Dr. Dinesh Agrawal, *Professor , The Pennsylvania State University,University Park, USA*
Dr. H. Deep Saini, *Vice President, University of Toronto*
Dr. Tatsuki Ohji, *National Institute of Advanced Industrial Science and Technology (AIST), Japan*
Dr. Mrityunjay Singh, *Ohio Aerospace Institute,NASA Glenn Research Center, , USA*
Dr. Sunil Kumar, *Coatings Mantra Signs & Technology Consulting, Australia*
Dr. Masashi, *Kotobuki, Hakodate National College of Technology, Hokkaido, Japan*
Dr. Venkatachalam Ramaswamy, *Princeton University (Forrestal Campus), New Jersy, USA*
Dr. Thae Maung Maung, *Aerospace Engineering University, Meikhtilar, Myanmar*
Dr. Salam Amir Hashong, *Head of MIS Department, Thailand*
Dr. B.K. Dhindsaw, *BCAST Centre, Brunal University, London (UK)*
Dr. Satya Parkash, *Department of Materials and Metallurgy Engineering, IIT Roorkee*
Prof. Raman Singh, *Director, Research Training Department of Mechanical & Aerospace Engineering, Australia*
Dr. Manoj Gupta, *Assoc. Prof., National University of Singapore, Singapore*
Dr. A.K. Sharma, *IIT Roorkee*
Dr. Inderdeep Singh, *IIT Roorkee*
Dr. Harpreet Singh, *IIT Ropar*
Prof. Tankeshwar Maths, *PU Chandigarh*
Dr. Anish Sachdeva, *NIT Jalandhar*
Dr. DP Sharma, *The University of West Indies, West Indies*
Dr. Satbir Singh, *Carnegie Mellon University, Pittsburg, USA*
Dr. Harpreet Singh Grewal, *Korea Institute of Science & Technology, Korea*
Dr. Harmesh Kansal, *PU Chandigarh*
Dr. Gurinder Singh Brar, *GNDEC Ludhiana*
Dr. Jagdev Singh, *BCET Gurdaspur*
Dr. Deepak Dwivedi, *Punjabi University, Patiala*
Prof. Manoj, *PU Chandigarh*
Dr. Harsh Verma, *NIT Jalandhar*
Dr. Savita, *PU Chandigarh*
Dr. Surjeet Singh, *GNDU, Amritsar*
Dr. B.B. Goyal, *PU Chandigarh*
Dr. K. Kundu, *Sr. Scientist, MERADO, Ludhiana*
Dr. Ravi Shankar, *IIT Delhi*
Dr. Jaimal Singh Khamba, *PU, Patiala*
Dr. Yadhvir Singh, *HBTI Kanpur*
Prof. Jaswinder Singh, *GNE Ludhiana*
Dr. Sarbinder Singh, *NIT Jalandhar*

Local Advisory Board/Organizing Committee

Mr. Manoj Kumar, *ACET Amritsar*
Dr. Harinder Singh Gill, ACET Amritsar
Dr. Tanupreet Singh, *ACET Amritsar*
Er. Paramjit Singh Sidhu, *ACET Amritsar*
Dr. Amit Sareen, *ACET Amritsar*
Er. Sandeep Kad, *ACET Amritsar*
Dr. Jyoti, *ACET Amritsar*
Er. Narinder Sharma, *ACET Amritsar*
Dr. Maninder Singh Gill, *ACET Amritsar*
Ms. Deepti Malhotra, *ACET Amritsar*
Mr. Harinder Singh Sarkaria, *ACET Amritsar*
Mr. Rakesh Jaitly, *ACET Amritsar*
Mr. Jayant Vats, *ACET Amritsar*
Mr. Raman Kumar, *ACET Amritsar*
Mr. I.J.S. Sodhi, *ACET Amritsar*
Mr. Sandeep Kaushal, *ACET Amritsar*
Mr. Ajay Sharma, *ACET Amritsar*
Mr. Dharminder Singh, *ACET Amritsar*
Mr. Sumit Singh, *ACET Amritsar*
Mr. Bimal Kumar, *ACET Amritsar*
Mr. Jashanpreet Singh, *ACET Amritsar*
Mr. Gagandeep Singh, *ACET Amritsar*
Mr. Rajbir Singh, *ACET Amritsar*
Mr. Rachit Poddar, *ACET Amritsar*
Mr. Amandeep Sharma, *ACET Amritsar*
Mr. Sachin Khurana, *ACET Amritsar*
Mr. Amandeep Singh Gabbi, *ACET Amritsar*

Keynote Speakers

Speaker	**Dr. Timothy Savage**, *Associate Dean for Online Education, Trinity College Dublin*

Biography

Tim Savage was appointed as Trinity College Dublin, the University of Dublin's first Associate Dean for Online Education in 2013. His role is to provide academic leadership to technology-enhanced and online learning across College and to lead the online education initiative. Since that time his team at Trinity College Dublin has launched a portfolio of fully online postgraduate courses and developed Ireland's first Massive Open Online Courses (MOOCs). The success of these initiatives is having a real and immediate impact not only on students' lives but also across the face-to-face campus and potentially into the wider community.

Tim joined Trinity College Dublin in 2002 as a lecturer in technology and learning and since that time has been experimenting with, researching, and teaching the role technology has to play in enhancing higher education, widening participation and the creation of new models of learning among new cohorts of learners.

Trinity College Dublin, the University of Dublin is ranked 1st in Ireland and in the top 100 world universities by the QS World University Rankings.

Speaker	**Dr. Deepak Garg**, *Head, Computer Science Department, Thapar University, Patiala* *Chair, IEEE Education Society, India Council, IEEE Computer Society, India Council*

Biography

An astute performer with proven expertise in devising and effectuating policies aimed at ensuring smooth running of operations and execution of academic, research and administration tasks within the professional college/University premises; possesses potential for distinctive achievement through strategy, innovation, implementation and control.

Currently working as a faculty in the Computer Science and Engineering Department with Thapar University and having 16 years rich cross-functional experience in continuously delivering in the capacity of teacher and researcher.

Undertaken several prestigious research and consultancy assignments. Hands on experience in guiding B.Tech., M.Tech. and PhD students and producing excellent results.

Esteemed member of several professional organizations, editorial board of various journals and 98 publications to the credit. Conducted many seminars/ conferences/ workshops. He is Chair, IEEE Computer Society India Council and Chair, IEEE Education Society India Council and Chair, ACM SIGACT North India. He is Coordinator of NBA Nodal Center. He has visited Trinity College, Dublin few times for formalizing and executing contemporization program to take the University to next level of excellence. He is an ABET leader and has attended institute for the development of Excellence In Assessment Leadership (IDEAL) Workshop in US. The Details can be seen at www.gdeepak.com

Speaker	**Prof. R. Mahadevan**, *IEEE Senior Member & ABET IDEAL Scholar* *Vice Chair, IEEE Education Society, India Council*

Biography

Mahadevan Ramachandran is the Principal Advisor & ED, at AassaaneduCareand CEO at Kredo Systems, Chennai, India. As Principal Advisor, Mahadevan specializes on the implementation of processes and systems towards quality engineering education; national accreditations like NBA & NAAC; ISO 9001:2008 certification; and MalcomBalbridge Quality Model. More than 150 plus Institutions have availed his advisory services towards the same since 2004. R Mahadevan has trained more than 20,000 faculty members on Quality Systems towards Accreditations , Outcome Based Education, PEOs, POs & COs, Assessments etc. And conducted various workshops on Accreditations, Best Practices for Strategic Growth, All India Council for Technical Education's(AICTE) e-portal etc. for Principals/Deans/Directors/Senior Professors at Chennai, Bangalore, Pune, Hyderabad and Nagpur.

Mahadevan commenced his career as R&D Engineer at CMC Ltd., Hyderabad. He became a techno-entrepreneur in 1986 and catalyzed the development of innovative software and hardware products in Indian IT Industry. During 1999-2003, Mahadevan became an adjunct Professor in Computer Science Engineering, on invitation, and then got fascinated with academics and quality systems. From 2004 onwards, he is actively involved in quality initiatives at engineering and professional institutes. In 2014, he has ventured again into software development through Kredo Systems.

Mahadevan has more than 31 years of professional experience in software industry and in academics. Mahadevan has to his credit a number of papers on Accreditation and Total Quality Management and had given session presentations at both 2014 and 2015 ABET Symposiums, in USA. Mahadevan has become an ABET IDEAL Scholar (Institute for the Development of Excellence in Assessment Leadership)in August 2014.

Speaker	**Dr. Rajneesh Arora**, *Former Vice Chancellor, Punjab Technical University (PTU)*

Biography

Dr. Rajneesh Arora through his rich expertise and extensive experience in Research and Innovation, Policy Transformation and Institution building has been instrumental in advancement of higher education (engineering and technical streams) in Punjab and turning the state into a technically qualified society. Shaping careers of more than 4,00,000 students is certainly no ordinary achievement, however, he has been doing this with élan, year after year. As a visionary he is working towards cohesiveness amidst all Universities and institutes of Punjab to create a state brand value.

He did his Ph.d - (1989) and B.Tech - (1979) in electrical engineering from (IIT-D) Indian Institute of Technology , Delhi. Dr. Arora studied in DAV School Amritsar. He has a unique record of getting Gold Medal (1st in State) both in Matric (1973) and Higher Secondary (1974).

Currently Dr. Rajneesh Arora is working as a Managing Director at Amritsar College of engineering and technology, Amritsar.

Table of Contents

Smart Traffic Optimization Using Image Processing
Pranav Maheshwari, Deepanshu Suneja, Praneet Singh and Yogeshwar Mutneja

Project Based Teaching-LearningTool for Assessment of Graduate Attributes
Vinay Kumar Chandna

A Blended Learning Model to Achieve Academic Excellence in Preparing Post Graduate Engineering Students to Become University Teachers
Archana Mantri

Using Scrum and Wikis to Manage Student Major Projects
Udai Kumar Kudikyala and Uma N. Dulhare

Preserving Green Computer Labs in Developing Countries with Thin Technology
Win Win Aung

A Practical Module for Generator Synchronization System
N. H. Ranchagoda, M. K. S. Sankalpana, K. A. S. K. Arachchi and D. S. De Silva

The Major Challenges for Engineering Institutions to Fulfill Industry Demands in India
K. S. Mann, M. Narendra Kumar and Harvinder Singh Saini

Analysis of Course Outcomes of HVE-A Tool for Assessment of Programme Outcomes
Shallu Bassi, V. K. Chandna and Sangeeta Singh

Course Outcome Assessment and Improvement on Weak Student
Vinay Kumar Chandna

An Efficient Approach Towards Privacy Preservation and Collusion Resistance Attendance System
Farida Akram and Ram P. Rustagi

Limitations and Improvement in the Assessment of Course Outcomes
Abhinav Saxena, Udit Mittal, Abhilasha Pawar and V. K. Chandana

Knowledge Center Initiative for Transforming India into Knowledge Destination
Sanjay D. Jain and Chandrashekhar G. Dethe

Knowledge Center –New Learning Paradigm for Engineering Education in India
Sanjay D. Jain and Vivek M. Nanoti

Innovative Approach to Inculcate Essential Management Attributes
Richa Sharma and Vinay Kumar Chandna

CPU Task Scheduling using Genetic Algorithm
Abhineet Kaur and Baljit Singh Khehra

Optimizing False Positive in Anomaly based Intrusion Detection using Genetic Algorithm
Dipika Narsingyani and Ompriya Kale

Fault Tolerant Algorithm for Replication Management in Distributed Cloud System
Rimmy Yadav and Avtar Singh Sidhu

Weightage Factor Analysis Between Programme Outcomes and Course Outcomes: A Case Study
Parveen P. Terang, Sanjiba Kr. Bisoyi and Vinay Kumar Chandna

Analysis of Course Outcomes of PE-A tool for Assessment of Programme Outcomes
Sanjiba Kumar Bisoyi, Parveen P. Terang and Vinay Kumar Chandna

Academic Embedded Update and Scope of Employment
Ramnarayan Patro and Harish K. Sahoo

Learning through Modern Tools in Power Quality to Evaluate Course Outcome
Amit Kumar Roy, Gunjan Varshney and V. K. Chandna

Measuring Engagement in Online Collaborative Learning Activities: Comparative Analysis of the Conversational Framework and the Social Network Analysis Tool
Lyndall Cooper-Smith and Elspeth McKay

Parallel Stress Estimation for Consistent Task Scheduling using Buddy Strategy
Swinky Arora, Ankit Arora and Arashdeep Singh

Assessment of Course Outcomes (COs) in University Affiliated Engineering Programs – Case Study of Course Outcome Attainment
Mousami Vanjale, Sachin Shelar and P. B. Mane

Relationship Analysis Among Curriculum, Qualification, BOK and Task Profile in ICT Field
Tetsuro Kakeshita and Mika Ohtsuki

An Ecosystem for Corporate Training with Accessible MOOCs and OERs
Sandra Sanchez-Gordon and Sergio Luján-Mora

An Autonomic Approach for Fault Tolerance using Scaling, Replication and Monitoring in Cloud Computing
Ashima Garg and Sachin Bagga

An Enhancement in Classifier Support Vector Machine to Improve Plant Disease Detection
Rajleen Kaur and Sandeep Singh Kang

An Enhanced Synthetic Aperture Radar Algorithm for Sea Ice Detection Using Region Based Segmentation
Amanpreet Kaur and Sandeep Singh Kang

Engineering Cognitively in an Indian Scenario
Chahat Jain, Gurjot Kaur Walia, Navneet Kaur, Harminder Kaur and Gurpurneet Kaur

Experiment for Automatic Assessment of User-generated Tests
Atsushi Taniguchi and Sozo Inoue

RMI Approach to Cluster Based Winograd's Variant of Strassen's Method
Harmanpreet Kaur, Sachin Bagga and Ankit Arora

A Decision Support System Approach for Accreditation & Quality Assurance Council at Higher Education Institutions in Yemen
Fatek Saeed and Anurag Dixit

To Study the Characteristics Properties of Silver-Nano Ink Using PSoC4 4200
Abinash Kumar, Puneet Singh, Purnima Gupta and Purushottam Bhardwaj

Computer Vision and Sensor Fusion for Efficient Hybrid Tracking in Augmented Reality Systems
Deepti Prit Kaur and Archana Mantri

Decoding the Indian MOOC Learner
Anitha Kaveri, Deepak Gupta, Sangeetha Gunasekar and Maheshwar Pratap

To Investigate the Effect of RSSI on QoS Aware Convergecast Routing in Wireless Sensor Network
Lovepreet Kaur and Jyoteesh Malhotra

A Benchmark Programming Assignment Suite for Quantitative Analysis of Student Performance in Early Programming Courses
K. K. Sharma, Kunal Banerjee, Chittaranjan Mandal and Indra Vikas

Importance of Course Sequencing in Overall Learning
Samita Maitra, R. Shivakumar and K. Mallikarjuna Babu

Towards Advancement of Education in Software Engineering
Bharti Suri, Nishtha Jatana and Minakshi Tomer

Experimental Learning in Scripting Languages Laboratory
Jayalakshmi G. Naragund, C. Sujatha, K. G. Karibasappa, Shantala Giraddi and Shilpa Yaligar

Journey from Traditional to Recent Emerging Techniques in Education System: An Overview
Ajay Gupta

Some Thinking and Experience about the Electrotechnics Curriculum Reform in Undergraduate Education
Jing Bai, Xian-Sheng Qin, Shun-Qi Zhang, Zhan-Xi Wang, Jing Li and Shu-Jun Li

A Solution for Employee Security in Corporate Cabs
Ankit Bansal, Divyanshu Sahay, Gaurav Yadav and T. R. Sateesh Kumar

Teaching Methodology in Engineering: Issues and Remedies
R. S. Raju

A Web-based Assessment Tool for Various Types of Self-Evaluation utilizing Common BOK in ICT
Mika Ohtsuki and Tetsuro Kakeshita

Design of Modified Sierpinski Gasket Fractal Antenna forand X-Band Applications
Navreet Kaur, Jagtar Singh Sivia and Manpreet Kaur

Blending Active Learning inModified SPOC Based Classroom
Shruti Bansal and Pushpendra Singh

Empowering Education Through Mobile Cloud Computing Based Learning Process Models
Chinu Singla and Sakshi Kaushal

Collaboration Process for Authentic Assessment in Technical Education
Shreyas Suresh Rao and Ashalatha Nayak

Smart and Intelligent Next Generation Classrooms Over Cloud
Shashi Pal Singh, Ajai Kumar, Archana Singh and Kartika Jain

Open Source as an Innovative Approach in Computer Science Education – Systematic Review of Advantages and Challenges
Nada Alasbali and Boualem Benatallah

A Virtual Laboratory for Computer Organisation and Logic Design (COLDVL) and Its Utilisation for MOOCs
Gargi Roy, Devleena Ghosh and Chittaranjan Mandal

A Conceptual Framework for Proactively Planning and Retrospectively Evaluating E-learning Readiness within an Open Distance Learning (ODL) Institution
Hanifa Abdullah

Closing the Gap between Research and Practice in Engineering Education: UTEC, A Peruvian University
Bejarano H. Alberto and Moreno R. Pablo

Web Technologies Integrated With Advance Database Management System: A Laboratory Experience
Priyadarshini Patil, Pooja Shettar, Mallikarjun Akki, Bhagya Sunag and S. M. Meena

Active Learning Approaches to Teach Intellectual Property Rights
C. Gururaj

An Activity Based Learning: C Programming
Vidya S. Handur, Priyadarshini D. Kalwad, Nagaratna Yaligar, Vishwanath G. Garagad and Manjula K. Pawar

Synchronous Training in Distributed Software Development Team
D. Manoj Ray and Philip Samuel

Transforming Education and Employment
Apoorva Joshi and Prathamesh Wakade

Effective Teaching and Learning Process through Project Based Learning (PBL)
Shrey Kumar and Gurendra Nath Bhardwaj

Detection of Phishing Webpages Using Weights Computed Through Genetic Algorithm
Sukhjeet Kaur and Er. Amrit Kaur

Optimal Instructional Methods for Engineering Studies
Pritee Parwekar, Suresh Chandra Satapathy and Ambarish Parwekar

An Approach to Automatic Evaluation of Higher Cognitive Levels Assessment Items
Shilpi Banerjee, Chandrashekar Ramanathan and N. J. Rao

Enhancing MOOC with Augmented Reality, Adaptive Learning and Gamification

Jyoti Chauhan, Shilpi Taneja and Anita Goel

The Recent State of Educational Data Mining:Survey and Future Visions
Karan Sukhija, Manish Jindal and Naveen Aggarwal

Combination of Internet Technology and Education Technology Used for Improvement in Examination System of Engineering
Sudhanshu Suhas Gonge and Gauri Milind Kandalkar

MOOCs:Comprehensive Study to Highlight its Strengths and Weaknesses
Arjit Sachdeva, Prashast Kumar Singh and Amit Sharma

Teaching-Learning Process for Industry Oriented Courses – A Case Study
B. S. Nagabhushana and Rajeshwari Hegde

Designing Curriculum to Optimize the Paradigms in Engineering Education in India
Umang Sehgal and Sadanand Gokhale

Design, Performance and Cost Analysis of Various Band pass IIR Filters for Myriametre Band Applications
Manish Kumar Soni, Rajesh Mehra and Rajesh Kumar

Introducing 'Modern Tool' in Engineering Education: An Example
B. Kanmani, B. Shreenivas and M. K. Prasanna Kumar

Case Study of Touch Technology – Used for Teaching Physically Disabled Students
Arshdeep Singh and Arshdeep Kaur

Reliable State-full Hybrid Energy Efficient Distributed Clustering Protocol for Wireless Sensor Networks: RS-HEED
Anuj Kumar Jain, Vinamara Chargotra and Devendra Prasad

Static Vision Based Hand Gesture Recognition Using Principal Component Analysis
Mandeep Kaur Ahuja and Amardeep Singh

Entrepreneurship Education through MOOCs for Accelerated Economic Growth
Manoj Kumar Mondal, Aashish Kumar and Bishnu Pada Bose

Learning Fundamentals of Introductory Course of Automatic Control Through Experimental Kits
Sahaj Saxena, Yogesh V. Hote and Pradeep Kumar Dhiman

Review of Indian Education System
Shinde Dnyandeo Dattatraya, Morten Falch, Rajendra G. Tated and Ramjee Prasad

An Algorithm for Static Geographical Clustering in VANET
Prabhjot Kaur Dhugga, Meenakshi Sharma and Anshu Sharma

Influence of Learning Management System on Student Engagement
Gayatri Venugopal and Rajashree Jain

Sentiment Analysis and Feedback Evaluation
Alok Kumar and Renu Jain

Rule Extraction for Detection and Prevention of Asthma Attacks
Sajeeda Shikalgar, Parisa Rai, Surabhi Marathe and Divya Nadar

Enhancing Research Proficiency in Postgraduate Engineering Students
Jayalakshmi G. Naragund, Suvarna G. Kanakaraddi, Vidya S. Handur and C. Sujatha

Distance Education and MOOC: Opportunities for Quality Education in Higher Education in Mauritius
Shireen Panchoo

Simulative Analysis of Fiber Non-Linearities Using Lightwave Systems for Enhanced Bit Rate with Optimized Power Level
Atul Mahajan and Harminder Singh

Toolbox for Genetic Algorithm in VC++
Gaurav Dhawan, Sarabjeet Singh, Satvir Singh and Vijay Kumar Banga

Translation: The Construct of Sense and the Make of Meaning
Jiang Wengan

Introducing 'Life-Long Learning' in Engineering Education
B. Kanmani and K. Mallikharjuna Babu

Author Index

A

Abdullah, Hanifa 317
Aggarwal, Naveen 340
Ahuja, Mandeep Kaur 362
Akki, Mallikarjun 322
Akram, Farida 154
Alasbali, Nada 311
Alberto, Bejarano H. 318
Arachchi, K. A. S. K. 148
Arora, Ankit 192, 228
Arora, Swinky 192
Aung, Win Win 147

B

Babu, K. Mallikharjuna 403, 259
Bagga, Sachin 209, 228
Bai, Jing 279
Banerjee, Kunal 249
Banerjee, Shilpi 338
Banga, Vijay Kumar 396
Bansal, Ankit 286
Bansal, Shruti 300
Bassi, Shallu 150
Benatallah, Boualem 311
Bhardwaj, Gurendra Nath 331
Bhardwaj, Purushottam 235
Bisoyi, Sanjiba Kr. 172
Bisoyi, Sanjiba Kumar 174
Bose, Bishnu Pada 364

C

Chandna, Vinay Kumar 132, 150, 151, 156, 160, 172, 174, 184
Chargotra, Vinamara 360
Chauhan, Jyoti 339
Cooper-Smith, Lyndall 186

D

Dattatraya, Shinde Dnyandeo 374
Dethe, Chandrashekhar G. 157
Dhawan, Gaurav 396
Dhiman, Pradeep Kumar 365
Dhugga, Prabhjot Kaur 375
Dhugga, Prabhjot Kaur Dixit, Anurag 232
Dulhare, Uma N. 146

F

Falch, Morten 374

G

Garagad, Vishwanath G. 326
Garg, Ashima 209
Ghosh, Devleena 315
Giraddi, Shantala 272
Goel, Anita 339
Gokhale, Sadanand 352
Gonge, Sudhanshu Suhas 344
Gunasekar, Sangeetha 242
Gupta , Ajay K. 273
Gupta, Deepak 242
Gupta, Purnima 235
Gururaj, C. 324

H

Handur, Vidya S. 326, 384
Hegde, Rajeshwari 349
Hote, Yogesh V. 365

I

Inoue, Sozo 220

J

Jain, Anuj Kumar 360
Jain, Chahat 217
Jain, Kartika 309
Jain, Rajashree 380
Jain, Renu 381
Jain, Sanjay D. 157, 158
Jatana, Nishtha 270
Jindal, Manish 340
Joshi, Apoorva 330

K

Kakeshita, Tetsuro 203, 298
Kale, Ompriya 168

Kalwad, Priyadarshini D. 326
Kanakaraddi, Suvarna G. 384
Kandalkar, Gauri Milind 344
Kang, Sandeep Singh 210, 216
Kanmani, B. 357, 403

Karibasappa, K. G. 272
Kaur, Abhineet 163
Kaur, Amanpreet 216
Kaur, Arshdeep 358
Kaur, Deepti Prit 239
Kaur, Er. Amrit 336
Kaur, Gurpurneet 217
Kaur, Harmanpreet 228
Kaur, Harminder 217
Kaur, Lovepreet 244
Kaur, Manpreet 299
Kaur, Navneet 217
Kaur, Navreet 299
Kaur, Rajleen 210
Kaur, Sukhjeet 336
Kaushal, Sakshi 302
Kaveri, Anitha 242
Khehra, Baljit Singh 163
Kudikyala, Udai Kumar 146
Kumar, Aashish 364
Kumar, Abinash 235
Kumar, Ajai 309
Kumar, Alok 381
Kumar, M. K. Prasanna 357
Kumar, M. Narendra 149
Kumar, Rajesh 355
Kumar, Shrey 331
Kumar, T. R. Sateesh 286

L

Li, Jing 279
Li, Shu-Jun 279
Luján-Mora, Sergio 206

M

Mahajan, Atul 390
Maheshwari, Pranav 130
Maitra, Samita 259
Malhotra, Jyoteesh 244
Mandal, Chittaranjan 249, 315
Mane, P. B. 194
Mann, K. S. 149
Mantri, Archana 134, 239
Marathe, Surabhi 382
McKay, Elspeth 186
Meena, S. M. 322
Mehra, Rajesh 355
Mittal, Udit 156
Mondal, Manoj Kumar 364
Mutneja, Yogeshwar 130

N

Nadar, Divya 382
Nagabhushana, B. S. 349
Nanoti, Vivek M. 158
Naragund, Jayalakshmi G. 272, 384
Narsingyani, Dipika 168
Nayak, Ashalatha 308

O

Ohtsuki, Mika 203, 298

P

Pablo, Moreno R. 318
Panchoo, Shireen 385
Parwekar, Ambarish 337
Parwekar, Pritee 337
Patil, Priyadarshini 322
Patro, Ramnarayan 182
Pawar, Abhilasha 156
Pawar, Manjula K. 326
Prasad, Devendra 360
Prasad, Ramjee 374
Pratap, Maheshwar 242

Q

Qin, Xian-Sheng 279

R

Rai, Parisa 382
Raju, R. S. 289
Ramanathan, Chandrashekar 338
Ranchagoda, N. H. 148
Rao, N. J. 338
Rao, Shreyas Suresh 308
Ray, D. Manoj 327
Roy, Amit Kumar 184
Roy, Gargi 315
Rustagi, Ram P. 154

S

Sachdeva, Arjit 348
Saeed, Fatek 232
Sahay, Divyanshu 286
Sahoo, Harish K. 182
Saini, Harvinder Singh 149
Samuel, Philip 327

Sanchez-Gordon, Sandra 206
Sankalpana, M. K. S. 148
Satapathy, Suresh Chandra 337
Saxena, Abhinav 156
Saxena, Sahaj 365
Sehgal, Umang 352
Sharma, Amit 348
Sharma, Anshu 375
Sharma, K. K. 249
Sharma, Meenakshi 375
Sharma, Richa 160
Shelar, Sachin 194
Shettar, Pooja 322
Shikalgar, Sajeeda 382
Shivakumar, R. 259
Shreenivas, B. 357
Sidhu, Avtar Singh 169
Silva, D. S. De 148
Singh, Amardeep 362
Singh, Arashdeep 192
Singh, Archana 309
Singh, Arshdeep 358
Singh, Harminder 390
Singh, Praneet 390
Singh, Prashast Kumar 348
Singh, Puneet 235
Singh, Pushpendra 300
Singh, Sangeeta 150
Singh, Sarabjeet 396
Singh, Satvir 396
Singh, Shashi Pal 3Singla09
Singla, Chinu 302
Sivia, Jagtar Singh 299
Soni, Manish Kumar 355
Sujatha, C. 272, 384
Sukhija, Karan 340
Sunag, Bhagya 322
Suneja, Deepanshu 130
Suri, Bharti 270

T

Taneja, Shilpi 339
Taniguchi, Atsushi 220
Tated, Rajendra G. 374
Terang, Parveen P. 172, 174
Tomer, Minakshi 270

V

Vanjale, Mousami 194
Varshney, Gunjan 184
Venugopal, Gayatri 380
Vikas, Indra 249

W

Wakade, Prathamesh 330
Walia, Gurjot Kaur 217
Wang, Zhan-Xi 279
Wengan, Jiang 397

Y

Yadav, Gaurav 286
Yadav, Rimmy 169
Yaligar, Nagaratna 326
Yaligar, Shilpa 272

Z

Zhang, Shun-Qi 279