

Indian Society for Technical Education



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visit us at : www.isteonline.inEmail : istedhq@isteonline.org

NOTIFICATION OF ISTE M.TECH. THESIS AWARDS 2019

NOMINATIONS are invited from students of all Government, Aided and Unaided technical Institutions for the ISTE Best M.Tech. Thesis Awards in various disciplines for the year 2019. Details regarding each award and nomination forms are available in the ISTE website "www.isteonline.in". The last date for submission of all the nominations to ISTE Hqrs., New Delhi is **August 31, 2019**. Please contact the Head of Institution for these awards. The awards will be distributed during the ISTE Annual Students Convention which will be held during October/November this year.

- 1. ISTE-GSFC National Award for Best M.Tech. Thesis in Mechanical Engineering** instituted by Gujarat State Fertilizers Co. Ltd., Baroda in 1989.

Eligibility : Full time P.G. Students of Engg. Colleges
Award consists of cash prize (Rs.10,000/- I Prize, Rs.6,000/- II Prize), a medallion and a citation.

- 2. ISTE-IPCL National Award for Best M.Tech. Thesis in Chemical Engineering** instituted by the Indian Petrochemical Corporation Ltd., Baroda for promoting research work among post-graduate students in Chemical Engineering.

Eligibility : Full time P.G. Students of Engg. Colleges
Award consists of cash prize (Rs.10,000/- I Prize, Rs.6,000/- II Prize), a medallion and a citation.

- 3. ISTE-L&T National Award for Best M.Tech. Thesis in Electrical/Electronics Engineering** instituted by Larsen & Toubro Ltd., Bombay to promote post-graduate research in the area of Electrical/Electronics Engg.

Eligibility : Full time P.G. Students of Engg. Colleges
Award consists of cash prize (Rs.10,000/- I Prize, Rs.6,000/- II Prize), a medallion and a citation.

- 4. ISTE National Award for Best M.Tech. Thesis in Civil Engineering** instituted by Smt. Saraswathi Bai and Dr. S. Venkoji Rao of Tirupati (Andhra Pradesh) in memory of their late sons Shri S.Sridhar and Shri S. Giridhar to

promote research in the area of Civil Engineering at the Post-graduate level.

Eligibility : Full time P.G. Students of Engg. Colleges
Award consists of cash prize (Rs.10,000/- I Prize, Rs.6,000/- II Prize), a medallion and a citation.

- 5. ISTE National Award for Best M.Tech. Thesis in Agricultural Engineering** instituted by the Organisers of the 28th Annual Convention of ISTE held at Punjab Agricultural University, Ludhiana during November, 1998.

Eligibility : Full time P.G. Students of Engg. Colleges
Award consists of cash prize of Rs.10,000/- for the best thesis, a medallion and a citation.

- 6. ISTE-Kings College of Engineering National Award for Best M.E./M.Tech. Thesis in Engineering to promote research in agricultural applications and/or rural development** instituted by the Management of Kings College of Engineering, Punalkulam, Pudukkottai Dist., T.N. during the 18th ISTE National Students Convention.

Eligibility : Students studying any discipline in post graduate engineering or technology in any institutions including the IITs, NITs, State Level Engineering Colleges, University during this year or who is completing the degree course at any time during this year is eligible to compete the award. Award consists of a cash prize, a medallion and a citation.

All the nominations should reach this office on or before the last date to the following address :

The Executive Secretary
Indian Society for Technical Education
IIT Campus, Shaheed Jeet Singh Marg,
New Delhi - 110 016
Phone : 011-26513542, 26963431
Email : istedhq@isteonline.org
Website : www.isteonline.in

SUCCESS AWAITS ONLY THOSE WHO MAKE A TRY!

APPEAL TO CONTRIBUTE NEWS/ARTICLES FOR ISTE NEWSLETTER

The Indian Society for Technical Education (ISTE) is the leading National Professional non-profit making Society for the Technical Education System in the country with the motto of Career Development of Teachers and Personality Development of Students and overall development of our Technical Education System. ISTE publishes monthly Newsletter which was earlier circulated to all life members, institutional members, Central & State Government Officials, Industry Associations and Corporate Offices. Considering the commitment towards going green, ISTE has stopped printing of Newsletter since a few years and serving readers by providing soft copy of the same on the official website "www.isteonline.in"

ISTE has been receiving innovative suggestions from all members for further enhancing the eminence of the Newsletter by introducing theme based articles from its members, corporate world, success stories of Industrial engineers, best practices at Institutions, technological innovations worldwide, etc. so as to benefit the readers. The Newsletter shall continue to include information of activities conducted under ISTE faculty chapters, students chapter, notifications related to schedule of ISTE various programs/activities, national/regional awards, etc.

ISTE hereby solicits articles not exceeding 300 words based on the theme from its members & stakeholders in word file only along with good quality photo (preferably 6 cms x 4 cms) in JPEG format. Institute members can send success stories of their students, staff who have made excellent, outstanding and exemplary strides in technical/industrial field. The success stories should be in a word file and should not exceed 400 words and should be accompanied by a good quality photo (preferably 6 cms x 4 cms) in JPEG format.

All articles, information and photo (in JPEG format) with caption should be sent in a word file to **istenewsletter@gmail.com**. Selected articles/information with good quality photos will be published in the ISTE Newsletter. The correspondence address is as follows:

The Executive Secretary

Indian Society for Technical Education
Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi - 110 016
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Email : istedhq@isteonline.org
Website : www.isteonline.in



QUOTE FOR THE MONTH

Life is combination of adjustments and compromises. You adjust when someone wants to be with you and compromise when you want to be with someone.

WIT AND WISDOM

- If we want to maintain true relation with someone, always believe in what we know about them, not in what we heard about them.
- If you have to hurt other people in order to feel powerful, you are an extremely weak individual.
- If it is important to you, you will find a way. If it is not, you will find an excuse.
- Challenges are what make life interesting and overcoming them is what makes life meaningful.
- Life is not being rich, being popular, being highly educated or being perfect. It is about being real, being humble and being kind.
- No matter what your current circumstances are, if you can imagine something better for you, you can create it.
- Help when you can, Be there when you can, Encourage when you can. A truly happy life comes from giving more than you take.
- Leadership is not about titles, positions or flowcharts. It is about one life influencing another.

- John C. Maxwell

- It is not how big the house is, it is how happy the home is.
- Move out of your comfort zone. You can only grow if you are willing to feel awkward and uncomfortable when you try something new.
- Brian Tracy
- Stay away from people who can not take responsibility for their action and who make you feel bad for being angry at them when they do you wrong.
- Too much stress literally causes the human brain to freeze and shut down temporarily.
- You can not control everything. Sometimes you just need to relax and have faith that things will work out. Let go a little and just let life happen.



ACTIVITY FOR THE MONTH

TOPIC FOR DISCUSSION

Safety through Cybersecurity

All the Chapters/Student Chapters may conduct Seminars/Workshops on the above topic and send the recommendations to the Headquarters for the needful.

NEWS FROM ISTE FACULTY AND STUDENT CHAPTERS

KARNATAKA

- **Sambhram Institute of Technology, Bengaluru** organised **Vigilance Awareness Week** from 29th to 30th October, 2018 in association with Bharat Electronics. The theme of the Vigilance Week was **Eradicate Corruption- Build a New India**. The resource persons were from BEL



Inauguration of Vigilance Awareness Week by the dignitaries.

- The Student Chapter also organised one day Nation Wide Competition on **Legal Rights of Women** on 14-12-2018. All first year students were participated in the competition.



Group Photo of the competition.

MAHARASHTRA

- **Tatyasaheb Kore Institute of Engineering and Technology, Warananagar** organised program on **Financial Literacy** in association with State Bank of India, Kolhapur and Warananagar on 5-10-2018. Mr. Pradeep Dev, Regional Manager, SBI, Kolhapur graced the dais as a Chief Guest.



Inauguration of programme on "Financial Literacy"

- **P.R. Pote (Patil) Education & Welfare Trust's Group of Institutions, College of Engineering & Management, Amravati** organised Technical Paper Presentation **Techelons-2019** on 21-01-2019. Total 118 teams from

various engineering backgrounds, with an emphasis on the branches of Civil, Electronics, Telecommunication, Computer Science, Electrical and Mechanical. The event will provide an opportunity to the students to learn in detail about a core subject which is a part of curriculum and develop effective presentation skills.

TAMIL NADU

- **Sri Ramakrishna Engineering College, Coimbatore** organised two days National Workshop on **ARM Microcontroller Based Embedded Applications** on 17th & 18th September, 2018. The programme was coordinated by Dept. of ECE and more than 30 faculty members and students benefitted out of this programme.

TELANGANA

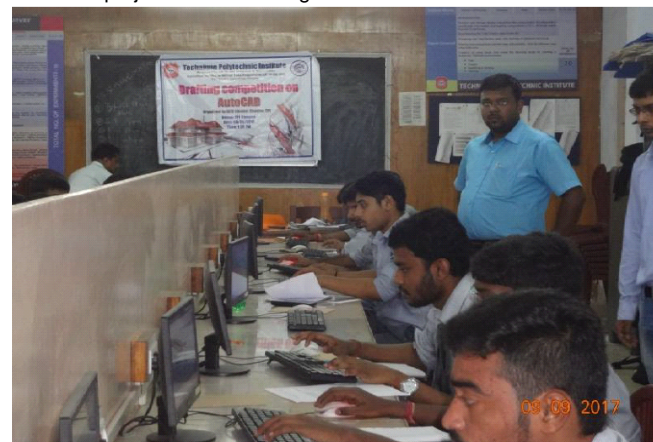
- **Vaagdevi College of Engineering, Warangal** conducted one day seminar on **Career Guidance** on October 4, 2018. Prof. V. Rama Rao, ISTE Executive Council Member and Sri Vandemataram Ravindra, Founder of Vandemataram Foundation, Telangana were the speakers for the programme.



Prof. V. Rama Rao, Chief Guest addressing the students during the seminar.

WEST BENGAL

- **Technique Polytechnic Institute, Dist. Hooghly** conducted **Inter College Final Year Project Competition** on 14-5-2019. One day Drafting Competition on **Autocad 2019** was also organised on the same day. Mr. Avijit Karmakar, Chairman, ISTE Chapter and Principal, TPI inaugurated the event. Students from different disciplines of various polytechnic institutes participated and showcased their projects and drafting skills in this event.



Drafting competition at a glance.

INAUGURATION OF ISTE FACULTY AND STUDENT CHAPTERS

ANDHRA PRADESH

- **Bapatla Engineering College, Bapatla** ISTE Faculty Chapter was inaugurated on 19-09-2018 by Dr. T.S.S. Balaji, ISTE National Executive Council Member. He highlighted the various activities of ISTE.



Chief Guest Dr. T.S.S. Balaji addressing the participants during the inaugural function.

- **Sri Venkateswara College of Engineering, Tirupati** ISTE Students Chapter was inaugurated on 30-08-2018 by Dr. K. Hemachandra Reddy, Dept. of Mech.Engg., JUNTA and Secretary, ISTE AP Section.



Dignitaries on the dais during the inauguration of ISTE Student Chapter.

KARNATAKA

- **Basavakalyan Engineering College, Basavakalyan** ISTE Faculty Chapter was inaugurated on 24-09-2018. On this occasion Dr. Sangappa S.B., Dr. Sharanappa Malashetty, ISTE EC Members; Prof. Nijananda Reddy, Secretary, ISTE Karnataka Section; Dr. S.B. Kivade, Principal, BEC; Prof. Vidyasagar Mulge, Secretary, ISTE Chapter and all HOD's were present during the function.



Inauguration of ISTE Faculty Chapter by the dignitaries on the dais.

- **Visvesvaraya Technological University, Centre for PG Studies, Kalaburagi** ISTE Students Chapter was inaugurated on 4-11-2018. VTU is one of the largest technological University in India with over 200 Engineering Colleges under it and has about 2 lakh students studying its syllabus. Dr. Karisiddappa, Vice Chancellor, VTU was inaugurated the programme. Dr. Karisiddappa has taken personal interest in establishing its first ISTE Students Chapter at Centre for PG Studies, VTU, Kalaburagi with active support of Dr. Baswaraj Gadgay, Regional Director and Dr. Shubhangi D.C., Professor & Chairman Computer Science and Engg. Dept. Dr. Sangappa S.B., Dr. S.G. Malashetty, ISTE EC Members and Dr. Nijanand Reddy, Secretary, ISTE Karnataka Section also graced the function. The function was attended by large number of students and faculty members of the institute.



Inauguration of ISTE Student Chapter by the dignitaries on the dais.

- **Sambhram Institute of Technology, Bengaluru** ISTE Student Chapter was inaugurated on 26-10-2018. A technical talk on **Recent Trends in Engineering and Technology** was also organised on this occasion. Dr. C.K. Subbaraya, Chairman, ISTE Karnataka Section was the speaker and Dr. H.G. Chandarakanth, Principal, SIT was presided over the function.



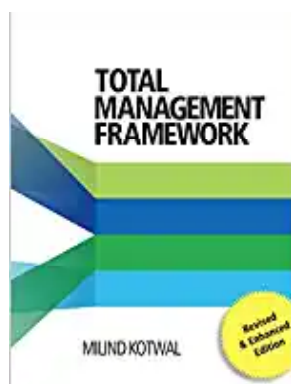
Inauguration of ISTE Student Chapter on 26-10-2018.

NEW E-MAIL Id FOR ISTE

Election to various bodies of ISTE are scheduled later this year. Therefore, it is requested to all the esteemed members of ISTE to kindly note the change of new e-mail - id for ISTE i.e. "istedhq@isteonline.org" for future correspondence. The old e-mail id of ISTE is deactivated by the service provider for operational reasons and not in use.

Executive Secretary, ISTE

TOTAL MANAGEMENT FRAMEWORK



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Discount to the ISTE
Institutional Members

ABOUT THE BOOK

The book “**Total Management Framework**” describes path breaking approach to study & practice of management. The approach described in the book shall be beneficial for the students of engineering institutions to understand Business, Business Enterprise, Business Transactions, Business Management and develop competence to make them job ready and effective future Managers. The book provides those insights, which management professionals otherwise acquire after long and deep management experience.

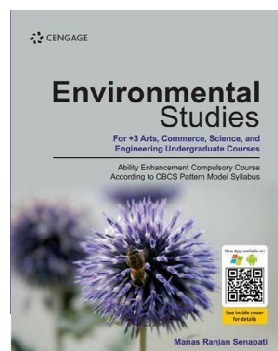
The book also explains complete process of business set up, from conceptualization to implementation, in simple language and in details; thus it provides guidance for the future entrepreneurs.

ABOUT THE AUTHOR

Shri Milind Kotwal is a unique combination of Entrepreneur, Consultant and Social Worker. He has worked at different levels, in different functional areas and from different industry segments before starting his management consulting practice. As a consultant he has handled diverse range of assignments, in the areas of strategic planning, performance assessments, organisation diagnostics and customer satisfaction studies.

He has also created "Model for Competency mapping and Assessment" and "Model for Process Oriented Employee Performance Appraisal". Both these models are in free circulation as e-books throughout the world.

ENVIRONMENTAL STUDIES



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ABOUT THE BOOK

This book is designed keeping in view the core course on **Environmental Studies** at leading Indian Universities, which will address all undergraduate students. The book explains various dimensions of environmental issues in a simple and systematic manner.

Key Features:

- Written in a simple and easy-to-understand manner
- Pedagogical tools such as Case Studies, Applications, Glossary etc. are embedded
- Every chapter is summarized at the end to impart clear understanding
- Solved problems are provided to explain the concepts in an easier way
- Important dates related to environment are mentioned
- Gives excellent account of the environmental laws and policies implemented in India.
- This book includes a licence key for our digital learning app, Cengage app, that provides access to self-assessments and flashcards.

ABOUT THE AUTHOR

M.R. Senapati is Professor and Head of Chemistry Department at Trident Academy of Technology, Bhubaneswar. He earned his doctoral degree from Utkal University, Bhubaneswar in 1993. He has published more than 15 research papers in national and international journals and also contributes popular science articles for newspapers and magazines. He has been conferred with many awards as noted Educational, Scientist and Environmentalist. As a noted environmentalist, he has received Parakruti Bandhu Award from Dept. of Forest and Environment of Government of Odisha.

NOTIFICATION OF ISTE STUDENT AWARDS 2019

ISTE is unique in the fact that among the professional Societies in India, it is only the ISTE that gives every year a number of National and Regional Student Awards to encourage innovation and excellence among teachers and students. All these awards were instituted by various organisations.

NOMINATIONS are invited from the ISTE student members of all Government, Aided and Unaided Institutions for the various **ISTE STUDENTS AWARD 2019**. The forms are available in the website "www.isteonline.in". Therefore, all Head of the Institutions/Chapter Chairmen/Faculty Advisors are requested to kindly advise the students of the ISTE Students Chapters to visit ISTE Website, download nomination form, read the instructions carefully and send their nomination to ISTE New Delhi before the last date. **Last date for submission of all the nominations to ISTE Hqrs., New Delhi is August 31, 2019.** The Awards will be given to winners during the **23rd ISTE Annual Students Convention to be held during October, 2019.**

A. NATIONAL AWARDS

1. **Kerala Government Engineering Design National Award** instituted by the Government of Kerala during the XV Annual Convention of ISTE held at Thiruvananthapuram in December 1985. This Award is meant to promote and encourage creativity, innovation and design talents in engineering degree students.

Eligibility : Any student in engineering or technology who is studying in an institution during this year or who is completing the degree course at any time during this year is eligible to compete for the award. Only FIRST YEAR DEGREE (no post graduate) students are eligible. Try individually or in groups of TWO only.

Award Details : Cash Prize (Rs.3000/- for First, Rs.2000/- for Second and Rs.1500/- for Third), a Medallion and Certificates to winners and also to all participants.

2. **NIT, Kozhikode National Award for the Best B.Tech. Project from Engineering Colleges** instituted by National Institute of Technology, Kozhikode to promote research in the areas of :
 - Civil & Architecture Engineering
 - Mechanical & Production Engineering
 - Electrical & Electronics Engineering
 - Computer & Communication Engineering

Eligibility : Students undergoing under-graduate programmes leading to B.E./B.Tech. degree in any Engineering Institution in India including the IITs, NITs, State Level Engineering Colleges, University Colleges and Engineering Dept. of Universities.

Award Details : Cash Prize Rs.2000/- each for the above four disciplines, Medallion and Certificates.

3. **Baba Banda Singh Bahadur Engineering College National Award for the Best B.Tech. Project related to Sustainable Development from Engineering Colleges** announced by Sardar Prakash Singh Badal, former Chief Minister, Punjab and instituted by the Management of Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab during 8th National Students Convention of ISTE during October 2005 to promote research in sustainable development in the area of :

- Civil Engineering & Architecture
- Mechanical Engg. & Production Engineering
- Electrical Engineering & Electronics
- Computers & Communication Engineering
- Information Technology & Management
- Agricultural Engineering

Eligibility : Final year students undergoing under-graduate programmes leading to B.E./B.Tech. Degree in any engineering institution in any of the above discipline in India including the IITs, NITs, State Level Engineering Colleges, University

Award Details : Cash Prize Rs.2000/- each for the above six disciplines, Medallion and Certificates.

B. REGIONAL AWARDS

1. **Devinder Singh Bansal Memorial Award for Best B.Tech. Project in Mechanical Engineering and Allied Branches in the State of Punjab** instituted by Mrs. Anup Kaur Bansal and Dr. A.S. Bansal donated a sum of Rs.1 lakh to ISTE to Institute a State Level Award in the area of Mechanical Engineering and Allied Branches (it includes Mechanical Engg., Production Engg., Automobile Engg., Industrial Engg., Agricultural Engg. and Farm Machinery) in the memory of their late son Shri Devinder Singh Bansal.

Eligibility : Students undergoing under-graduate programmes leading to B.E./B.Tech. Degree in Mechanical Engineering and Allied Branches in any Engineering College in Punjab.

The Award consists of a Cash Prize of Rs.7000, a Medallion, and a Citation.

NOTIFICATION OF ISTE STUDENT AWARDS 2019

- 2. ISTE-NARSEE MONJEE Award for Best Project work done by Polytechnic Students in Maharashtra State** instituted by The Narsee-Monjee Educational Trust, Mumbai for Final Year students of Polytechnics for their Project Work.

Eligibility : Final Year Diploma students in Maharashtra State graduating in B.T.E. approved Diploma Courses in Engineering/Technology/Architecture/ Pharmacy can apply through their Polytechnics.

Both Group Projects and Individual Projects will be acceptable. **However, the Group size should not exceed 4 STUDENTS.**

Selection of Award : A Panel of Judges consisting of representatives of DTE, ISTE and Narsee-Monjee Trust will select the Best, Second Best and Third Best Projects.

Award Details : Cash Prize (Rs.2500/- for First, Rs.1500/- for Second and Rs.1000/- for Third), a Medallion and a Certificate.

- 3. Maharashtra State Engineering Design Award** for Engineering Students (Degree Level) instituted by the Government of Maharashtra to promote and encourage creativity, innovation and design talents in engineering degree students.

Eligibility : Any student in engineering or technology who is studying in an institution in Maharashtra State during this year or who is completing the degree course at any time during this year is eligible to compete for the award. Only **FIRST DEGREE** (no post graduate) students are eligible. Try individually or in group of TWO only.

Award Details : Cash Prize (Rs.3000/- for First, Rs.2000/- for Second) a Medallion and Certificates to winners. In case two students work on a project and get the award, the cash prize will be shared between the two, certificates will be given to both, but the medallion will be given to the leader of the group only.

- 4. Punjab Technical University Award for Young Engineer Innovators** for the Best B.Tech. Projects by the students of Engineering Colleges affiliated to Punjab Technical University in the Punjab State. The Award was instituted by Punjab Technical University by donating a sum of Rs.11 lakhs to encourage the students and to stimulate the spirit of inventiveness among the technical students in order to honour and recognize their creative talent with a mission to harness their performance for the benefit of society and the nation in the following disciplines:

- Civil Engineering & Architecture
- Mechanical, Production Engineering, Industrial Engineering and Automobiles etc.
- Electrical Engineering & Electronics Engineering
- Computers and Communication Engineering & Information Technology
- Chemical Engineering, Bio-Technology & Food Technology etc.

Eligibility : Final year students of the above branches undergoing under-graduate programmes leading to B.E./B.Tech. Degree in the institution affiliated to Punjab Technical University including the NITs, University-Colleges, Engineering Depts., Engineering & Technology Colleges etc.

Award Details : Cash Prize, Medallion and a Citation.

- 5. Best Students Chapter Award** (One from each Section)

An Award consisting of a plaque and a certificate will be given to the Best Students Chapter in each Section (provided there are at least 10 Student Chapters in the Section) based on their performance during the period January 1 to September 15 as judged by the concerned Section Managing Committee. The Award will be presented during the National ISTE Students Convention during October, 2019. The Award consists of a Certificate and a Medallion. Sections are requested to recommend the name of **Best Students Chapter** as judged by them to ISTE Hqrs. New Delhi by **September 15, 2019**.

ISTE Best Student Award 2019 (one from each student chapter)

All Student Chapters Managing Committees are requested to kindly select one best student from their Student Chapter on the basis of overall performance of the student members. The name of student selected may please be sent to their Section under intimation to ISTE Hqrs., New Delhi. The ISTE Section will give the **Best Student Award 2019** to the Students during the **Section Level Students Convention**. Student Chapters are kindly requested to get in touch with their Section regarding date, time & venue of the Convention.

Executive Secretary, ISTE

STRATEGIES TO ENHANCE ENROLMENT IN ENGINEERING EDUCATION

1. Introduction

India still claims to be the ancient seat of learning. Nalanda University, the first residential international university of the world founded in the 5th century A.D. by the Gupta empire makes this claim genuine. Nalanda at that time attracted pupils and scholars from Korea, Japan, China, Tibet, Indonesia, Persia, and Turkey, thus giving it the international flavour.

After colonization by invaders whose main motive was looting the wealth, our nation lost the glory it enjoyed in the past. In the present millennia, with so much of advancement in knowledge, economy enabled by technology, the education system has been compartmentalized in various disciplines and still struggling to keep pace with developed nations. The globalization and new economic policy have reflected in the field of education, promoting privatization. The paucity of funds to finance publicly funded institutions, liberal policies of the government and the willingness of entrepreneurs to invest in educational institutions saw the shift of technical education from public to self-supporting institutions. Thus, presently Indian engineering education system is dominated by the self-financing sector. However the mushrooming of teaching shops lead to a fall in standards. This fanned by the fact that the demand for skilled persons was far out numbered by the graduates lead to the present situation. With almost 50% approved seats remaining vacant, many institutions were forced to close shop or reduce the enrolment. Many graduates are unemployed or under-employed. In addition, a large section of faculty with post graduation is on the threat of losing their jobs. The reasons for this sorry state of affairs are worth pondering. Over the years the quality of the graduates also deteriorated for various reasons. Three crore Indians are right now looking for a job, and out of 126 crore population, 60% are under 35 years of age.

The lack of industry-ready candidates among the graduates is a debatable issue which is still not completely addressed or come to a consensus between industry leaders and academicians. To pick a few facts from industry leaders:

- IBM CEO Ginni's observation - the current educational system is not sufficient to skill students, and to make them job-ready especially to cope with IT sector jobs/ employment. Ginni assures everyone that jobs are plenty in the market, but regretted that there are not enough skilled persons to fill this gap.
- Capgemini India chief executive Srinivas Kandula had triggered a controversy when he said that 65% of Indians are not trainable and warned a job cut down due to this reason.

- HDFC Chairman, Deepak Parekh has invited controversy while addressing a gathering at IIT Madras by stating that 80% of Indian engineers are not employable.
- The Academicians, on the other hand, use the argument that during the graduate studies the students are given exposure to the fundamentals of the respective engineering field and institutions cannot focus on the need of a particular Industry. The graduate with the back ground knowledge will pick up the tricks of the trade and competence in the shop floor. This has been the norm always. But today due to cut-throat competition, the industry wants the recruits to deliver good right from day 1.

The National Employability Report for Engineers 2019 (job assessment platform Aspiring Minds), shows that over 80% of Engineers in India are unfit to take up any job in the knowledge economy. WEF has already stated that 50 lakh jobs will vanish by 2020, as AI, Robotics and Machine Learning will take over millions of jobs. India Skills Report states that only 47% of Indians can get a job, based on their present skills and degrees. While NASSCOM reports that only 25 % of graduates are employable. This is because only 40% of the total graduate engineers opt for internships for hands-on experience. Only 36% take up projects of practical relevance other than their regular course work, and only 47% of students attend industry talks to boost up their knowledge.

The report also suggests that the Engineering education is dominated by theory-based lessons and assessments, only 40% of Engineers opt for internships for practical knowledge.

The in-demand skills including artificial intelligence, data science, and machine learning account for only 2.5% of Indian engineers and only a handful of engineers (5.5%) are qualified with basic programming. Only 1.5% of Engineers in India have the required skills for new-age jobs. Out of 5.5 %, only 1.5% - 4.5% of Engineers possess the necessary skills in data Engineering, while only 2.8% - 5.3% are qualified in wireless technologies. [National Employability Report for Engineers 2019]

2. How to Concoct Rejuvenated Technical Education Systems

The Technical education systems comprise Faculty-students-Institution and Industry as the major entities. The quality of education imparted majorly is the responsibility of Institution and Faculty. The responsibility of its outcome in terms of concepts learned and application is more learner-centered such as the self-discipline, interest, involvement, attitude towards courses, innovation, creativity, cognitive skills, etc.. The stakeholders being

STRATEGIES TO ENHANCE ENROLMENT IN ENGINEERING EDUCATION

society, parents, friends, relatives, common men, etc. and industry, the Engineering Education systems need to upgrade the existing framework with some of the following to bring in effective change.

Students Aspects

- interest/attitude towards course
- aptitude towards engineering application
- creative and cognitive learning skills
- talents for explorative learning
- innovation and intuitive problem-solving skills
- Forced and mark scoring oriented learning systems
- Digital natives to societal citizens of responsibility
- Interpersonal skills, soft skills, empathy, self-discipline etc.
- Skills for Life long learning and adapting to changes
- Lack of career orientation and direction are given to the students Faculty Aspects
- National Employability Report (2019) indicates that 60% of faculty do not discuss how engineering concepts apply to the industry.
- Less number of schemes for faculty to opt for higher education, skill training/ foreign-national internships
- Opportunity to interact with industry and get a feel of what industry needs
- Viewing education as a business by some management, so the motivation to the faculty member is often at stake
- A motivated educator brings result oriented outcomes in terms of a successful graduate who can contribute to societal development
- Impart values such as integrity, honesty, respect, care, etc
- Devising new and innovative assessments with a measurable outcome
- The faculty also need to get exposed through various professional activities (learn and exhibit professionalism) and create the opportunity for the students to interact with industry-Industry Aspects
- Conduct employability and training assessment programs
- Research collaboration/ industry-academia interactions
- Project and Internships
- Offering invited talks by experienced persons in the institution

- Providing an opportunity for internship for students
- Allowing faculty members to have industry training
- Problem listing with the help of academicians
- As employer regular feedbacks and upgrades to be suggested to academia

Institute Aspects

- Institutional social responsibility (ISR)
- Adopting and updating new technology, meet industry needs through foresighted syllabus revision
- Organize formal forums for implementing reforms and interventions
- 360-degree feedback and online/offline training programs for all the staff (teachers evaluation to include pedagogy, class management, administrative skills)
- Recognize the central role of teachers in the academic mission
- Research collaboration in niche areas
- Professional bodies and allied activities
- SWOT analysis (student learning, employability, faculty skills, research papers funded projects, placement initiatives, etc)
- Exams should have a balance of theoretical questions, conceptual questions, and application-based questions
- Capacity building for faculty on the latest skilling/ tools
- Faculty/students entrepreneurship
- Create opportunities smart learning/phenomenon learning/experience learning/emotional learning
- Various Outreach activities to schools to kindle the interest of students in various engineering disciplines through competitions, mentorships, entrepreneurship, etc

It can be concluded that education especially professional education should impart employability ensuring quality. At the individual, Institutional and Societal level short-term and long-term planning supported by a value-system and far-sighted vision will enable the sustenance of humanity.

Mrs. NIDHI M.B.

(ISTE National Executive Council Member)
Mar Baselios College of Engineering and Technology,
Thiruvananthapuram, Kerala

NEW AWARD INSTITUTED

ISTE National Award for the Best Outstanding Teacher in Civil Engineering

Dr. R.N. Shahi, Retired Professor & Head, Dept. of Civil Engineering, MNNIT, Allahabad has instituted a National Award for the Best Outstanding Teacher in Civil Engineering in the memory of his beloved wife Late Smt. Prabhawati Shahi and donated a sum of Rs.2 lakhs to ISTE for instituting a National Award to encourage faculty members of Civil Engineering Department of Engineering Colleges in India to enhance their performance with a view to improve the quality of technical education.

The Executive Council in its 112th Meeting unanimously agreed for concession in the endowment fund being consideration of his age and his active membership.

The Award consists of a Plaque and a Citation and will be presented to the winner every year during the ISTE Annual National Faculty Convention.

ISTE appreciates the kind gesture of Dr. R.N. Shahi for instituting the above award, which is an indication of great interest and genuine concern for the development of Technical Education.

Proposals invited to host the ISTE National Annual Faculty and Students Conventions for the year 2019

As a regular annual feature, forty eight National Annual Faculty Conventions and twenty one Students Convention of ISTE have been held so far in different States. The major impact of these Conventions are instrumental in providing an opportunity for the Teachers, Educational Planners and Administrators, Students and all other stakeholders who are involved in the field of technical education to get together and share their views and to contribute the development of technical education system.

In this regard, Institutions are welcome to send their proposals for hosting the **22nd ISTE Annual Students Convention and 49th ISTE National Annual Faculty Convention**, which will be organised during October and December 2019 respectively. Proposals received will be placed before the ISTE Executive Council in its meeting for consideration.

Interested institutions are requested to send their detailed profile alongwith their willingness letter for hosting the Conventions to the following address:

The Executive Secretary

Indian Society for Technical Education
Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi - 110 016
Phone : 011-26513542, 26963431
Email : istedhq@isteonline.org
Website : www.isteonline.in

NEWS FROM SECTION

DELHI

- ISTE Delhi Section conducted the 13th edition of **INDIACom-2019** and 6th International Conference on **Computing for Sustainable Global Development** at Bharati Vidyapeeth Institute of Computer Applications and Management, New Delhi during 13th to 15th March, 2019. The function was presided over by Prof. K.K. Agarwal, Noted Academician and Founder Vice Chancellor, GGSIP University, New Delhi. Prof. M.N. Hoda, Director, BVICAM and General Chair INDIACom-2019 delivered welcome address. Prof. Purna Gaur, Executive Vice Chairperson, IEEE Delhi Section and Prof. A.K. Nayak, President (Elect), CSI also graced the occasion. The Guest of Honour for the function was Prof. Mohammad Yamin, The Australian National University, Canberra, Australia. Among other dignitaries present on the occasion were Dr. N.K. Gupta, Chairman, ISTE Delhi Section; Dr. Nitin Malik, Joint Registrar, GGSIPU; Mr. R.K. Vyas, Hony. Treasurer, CSI and Prof. A.K. Saini, Professor, GGSIP.



Dignitaries on the dais during the inauguration of INDIACom-2019

NEWS FROM AICTE

AICTE nod to Internship in Data Science, ML

Aimed at offering aspirants practical experience of machine learning (ML), the All India Council of Technical Education (AICTE) has approved an eight-week internship programme that will be conducted in the online mode.

Upon completion of the eight week internship and a successful video interview with faculty members of Career Launcher and Intel and an industry expert, candidates will be handed a certificate from the two organisations. The programme is meant to benefit candidates who are interested in programming language and want to solve business problems using AI and ML. Students of Engineering (any discipline), BCA, MCA, BSc, Bcom, BA, BBA and MBA can pursue the programme. Through the internship, they will get to do programming in python and use ML, libraries from Scikit-Learn such as Pandas, Matplotlib etc. The students will also implement ML algorithms for Registration and Classification. The internship is expected to help students pick up industry-relevant ML techniques and algorithms.

Source : The Times of India : Education Times

AICTE-ISTE INDUCTION/REFRESHER PROGRAMMES

MAHARASHTRA & GOA

- **Government College of Engineering, Chandrapur** conducted one week AICTE-ISTE sponsored Induction/Refresher Programme on **Digital Skills for Professionals** during 3rd to 8th December, 2018. The programme was inaugurated by the Chief Guest Shri Arvind Patil, General Manager, BSNL, Chandrapur and coordinated by Dr. S.G. Akojwar, HOD, GCE.



Group photo of participants, principal and course coordinator.

PONDICHERRY

- **Manakula Vinayagar Institute of Technology, Puducherry** conducted AICTE-ISTE approved Induction/Refresher Programme on **Smart Grid, Internet of Things and Green Computing - The Future Energy Intelligence** from 16th to 21st July, 2018. Dr. K. Manivannan, Vice President, ISTE was the Chief Guest and inaugurated the programme.



Chief Guest Dr. K. Manivannan addressing the participants during the inauguration of the programme.

TAMIL NADU

- **Velalar College of Engineering and Technology, Erode** conducted one week AICTE-ISTE sponsored Induction/Refresher Programme on **Modern Construction Materials, Techniques, Equipments and Practices** from 21st to 26th May, 2018. The programme coordinator was Dr. E. Ravi, Professor & Head, VCET.



Dignitaries on the dais during the release of programme CD.

TELANGANA

- **Matrusri Engineering College, Hyderabad** conducted one week AICTE-ISTE sponsored Induction/Refresher Programme on **Computational Intelligence using Machine Learning Techniques** from 23rd to 28th July, 2018. The programme was coordinated by Dr. P. Vijaya Pal Reddy Professor & Head, CSE Dept. Prof. Pratapsinh K. Desai, President, ISTE graced the function and delivered address to motivate the participants.



President, ISTE Prof. Pratapsinh K. Desai addressing the participants.



Dignitaries during the inauguration of the programme.

UTTAR PRADESH

- **G.L. Bajaj Institute of Technology & Management, Greater Noida** conducted one week AICTE-ISTE sponsored Induction/Refresher Programme on **Creativity & Innovation in Teaching Learning** from 2nd to 7th July, 2018. Prof. Ranjit Singh, ISTE Executive Council Member graced the function and delivered the address during the programme.

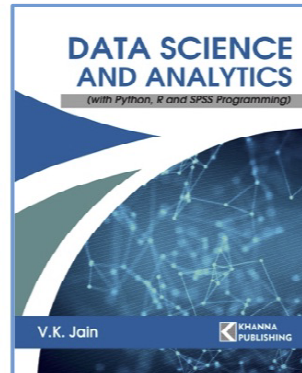
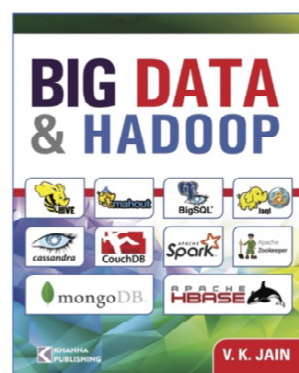
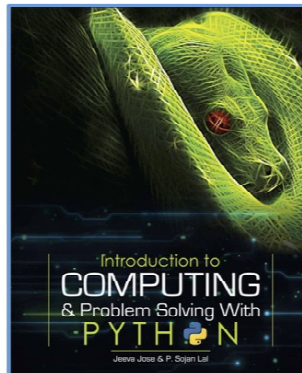
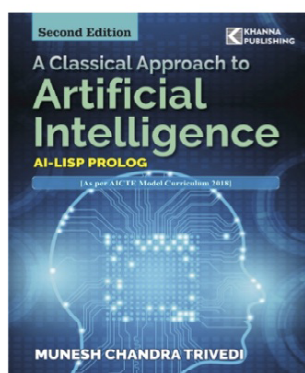
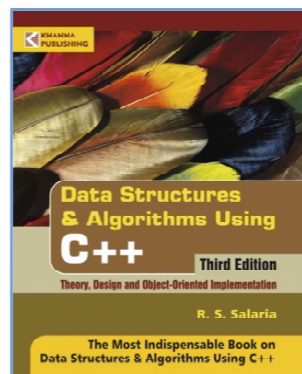
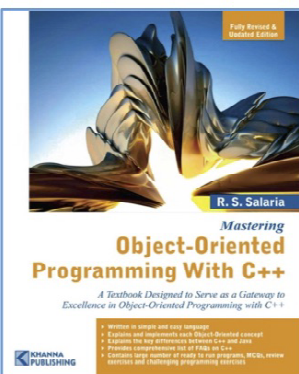
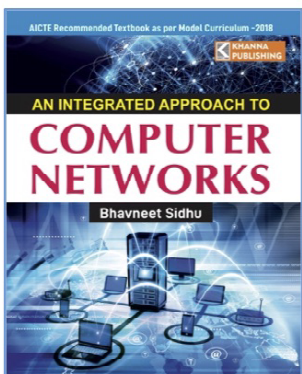
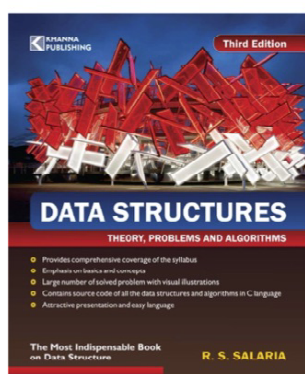
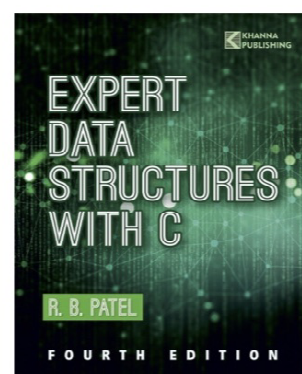
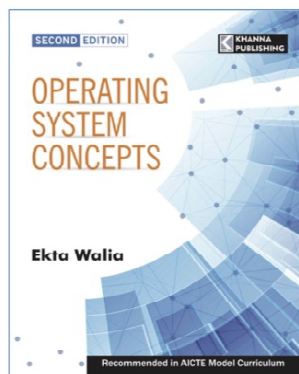
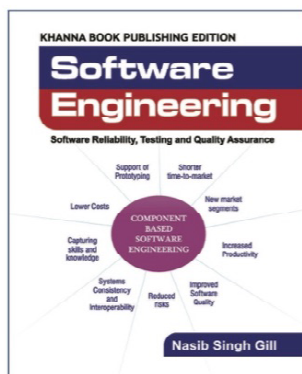
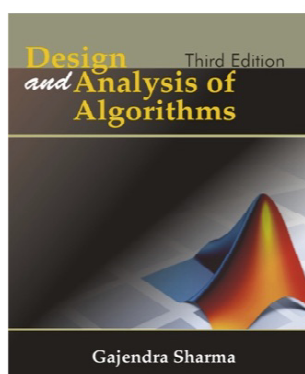


Prof. Ranjit Singh, ISTE EC Member addressing the participants.

Only sharp and well focussed photographs with ISTE Logo and Banner in the background shall be considered for publication.

Editor

AICTE Recommended Books of Indian Authors As per Model Curriculum 2018 COMPUTER SCIENCE ENGINEERING



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