



# COMPUTE 2018

Computing for Better Bharat

# COMPUTE 2018

COMPUTING FOR BETTER BHARAT



October 12-14, 2018  
Chitkara University, India

An International Symposium  
jointly organized by  
ACM India and Chitkara University

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## Report By

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Associate Local Organizing Chair, COMPUTE 2018  
Associate Professor, ECE Department, Chitkara University, India.

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Local Organizing Chair, COMPUTE 2018  
Dean (Research), Chitkara University, India.

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## Administrative Office

SCO 160-61, Sector 9 C, Chandigarh, 160009

## University Campuses

### **Chitkara University, Punjab**

Chandigarh-Patiala National Highway (NH- 64),  
Village Jhansla, Rajpura, Punjab - 140401

### **Chitkara University, Himachal Pradesh**

Atal Shiksha Kunj, Pinjore - Barotiwala National Highway (NH-21A),  
District - Solan, Himachal Pradesh - 174103

*Designed by: Neeraj Pandey*

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## Accolades for Chitkara University from Prof. Dr. Anil D. Sahasrabudhe Chairman, AICTE (Chief Guest, ACM COMPUTE 2018)

*“Chitkara University tagline ‘Explore Your Potential’ is not just there in mere words but it is actually in practice is what I have witnessed here after visiting some of the your laboratories. Students and faculty are carrying out innovative activities & projects in these labs. The ambience of the labs and the complete support system that has been developed is contributing in bringing out such innovations and the same is reflected from the number of patents Chitkara University has filed. I believe you have great potential; you can further accelerate the process and I am sure Chitkara University will be one of the top universities.”*



*Dr. Anil D. Sahasrabudhe inaugurating a lab in Applied Engineering Block at Chitkara University, Punjab. He is joined by Dr. Ashok K Chitkara – Chancellor, Chitkara University and Dr. Madhu Chitkara – Vice Chancellor, Chitkara University, Punjab*

## About ACM

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Association for  
Computing Machinery

ACM is the world's largest educational and scientific computing society founded in 1947 and is head quartered in New York, USA. It is non-profit professional membership group with over 100,000 members, more than half of which are from outside USA. It delivers resources that advance computing as a science and as a profession. ACM provides the computing field's premier Digital Library and serves its members and the computing profession with leading-edge publications, conferences and career resources.

ACM has 37 Special Interest Groups (SIGs) that represent major areas of the dynamic computing fields. ACM's SIGs are invested in advancing the skills of their members, keeping them abreast of emerging trends. It also sponsor annual conferences, workshops, and symposia

ACM supports more than 860 professional and student chapters worldwide and offer opportunities for members to gain access to critical research and establish personal networking systems.

ACM promotes computer research and innovation through its journals, magazines, and the proceedings of more than 170 annual conferences and symposia. It also provides access to the ACM Digital Library (DL), a comprehensive and expanding database of literature and detailed bibliographic resources for computing professionals from a wide range of publishers.



### ACM India

The ACM India Council is an effort of ACM aimed at increasing the level and visibility of ACM activities across India. The ACM community in India is growing in membership, number of chapters, sponsored conferences and symposia.

The ACM India Council comprises a cross section of the computer science and information technology community committed to increasing the visibility and relevance of ACM in India. The council is focused on a wide range of ACM activities including:

- *Serving as a professional network for individuals who are involved with the science and technology of computing*
- *Encouraging students to take an active interest in the emerging and exciting world of computing*
- *Facilitating the organization of high-quality ACM conferences in India*
- *Providing logistical support to grow more ACM professional and student chapters*
- *Enhancing access to the ACM Digital Library and publications for ACM members in India*
- *Increasing the participation of ACM members in India across all dimensions of ACM*

### ACM COMPUTE

COMPUTE started off in 2008 as an annual conference of ACM Bangalore Chapter to bring together researchers and practitioners working in the area of information management and knowledge services. COMPUTE 2018 was the 11th edition of the conference.

Sources: <https://www.acm.org/> | <http://india.acm.org/>



## About Chitkara University

The state governments of Punjab and Himachal Pradesh under the provisions of their respective state legislature acts have established two campuses of Chitkara University – Chitkara University, Punjab & Chitkara University, Himachal Pradesh. Both these Universities are government recognized and sanctioned by UGC with the right to confer degrees.

With Dr. Ashok Chitkara and Dr. Madhu Chitkara (hard core academicians with more than 40 years of experience in academia) at the helm of affairs, whole ethos system at Chitkara University campuses is very different and learning centric. Strong industry engagement, a vibrant culture to research and innovate, 100 % application oriented teaching while following highest of the academic

standards are just few of highlights of the great systems being followed at Chitkara campuses. Tie-ups with industries like nVidia, NXP Semiconductors, Texas Instruments, ARM, Dassault systems, SAP, Wipro, Infosys and many more speaks about the stringent efforts being put in by each and every member of Chitkara University for a great overall outcome. Chitkara remains one of the top choices for engineering aspirants in the northern part of the country every year and has been growing very fast on pan India basis so as to produce engineering professionals of the highest standards. Other than Engineering, Chitkara University also offers programs in Business management, Architecture, Health care Sciences, Mass media, Education, Pharmaceutical Sciences, Design & Animation and Nursing.



### **Prominent Engineering Conferences Organized by Chitkara University**

- *International Conference on Wireless Networks & Embedded Systems (5 editions) - WECON2008, WECON2009, WECON2011, WECON2015, WECON2016*
- *VLSI Design & Test Symposium - VDAT2010*
- *International Conference on High Performance Architecture & Grid Computing 2011*
- *6th International Conference on Communication Systems and Network Technologies - CSNT2016*
- *International Conference on Recent Trends in Nuclear Physics 2012*
- *International Conference on Sustainable Civil Engineering Practices 2016 & 2017*
- *Chitkara University Doctoral Consortium - CUDC2017*
- *International Conference on Computing Analytics & Networks - ICAN 2017*

### **Upcoming Conferences**

- *6th IEEE International Conference on Wireless Networks & Embedded Systems – WECON2018 (November 16-17, 2018)*
- *Sixth International Conference on Transformations in Engineering Education (ICTIEE 2019) jointly organized by Chitkara University and IUCEE (January 10-11, 2019)*

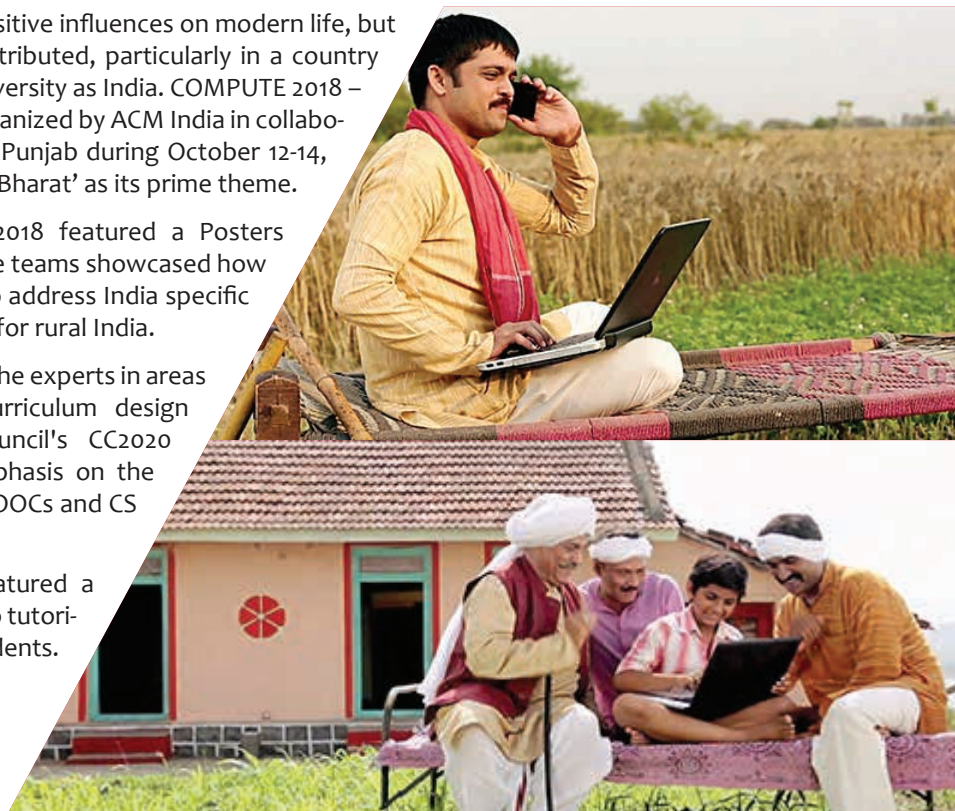
## COMPUTE 2018 Theme

Computation can have many positive influences on modern life, but these benefits are unevenly distributed, particularly in a country with as much socio-economic diversity as India. COMPUTE 2018 – An International Symposium organized by ACM India in collaboration with Chitkara University, Punjab during October 12-14, 2018 had ‘Computing for Better Bharat’ as its prime theme.

For the students, COMPUTE 2018 featured a Posters Presentation Competition where teams showcased how they were using computation to address India specific challenges including challenges for rural India.

For the faculty, Invited Talks by the experts in areas of Computer Science (CS) curriculum design including ACM Education Council's CC2020 efforts, CS pedagogy with emphasis on the role of technology, including MOOCs and CS assessments were organized.

In addition COMPUTE 2018 featured a panel discussion session and two tutorials, one each for faculty and students.



### COMPUTE 2018 Dashboard

- COMPUTE 2018 was attended by close to 300 delegates
- 5 Keynote Talks and 4 Invited Talks by leading experts in the field of Computer Science Education from institutions like – IIT, IIIT, CMI Chennai, TCS Research, EIT New Zealand
- COMPUTE 2018 received about 100 posters of which 23 were selected for presentation during the symposium
- 1 Panel Discussion Session on Science of Programming.
- 2 tutorials – one each for students and faculty.
- ACM Chapters’ Summit was held where 12 chapters presented their reports on ACM activities carried out by them in last one year.

### Posters Presentation Winners

Top three posters were selected in the posters presentation competition and they were awarded cash prize of INR 25,000, INR15,000 and INR 10,000 respectively by ACM India. The winning teams were

Position	Poster Title	Team
First	Automatic Triggering of Acoustic Sensing by Human Activity Recognition using Accerlerometer	Rajat Anand, Naveen Aggarwal, Vijay Paul Singh (UIET, Panjab University)
Second	SignDict: Mobile based ISL learning tool	Jestin Joy, Sreeraj M (Federal Institute of Science and Technology, Kerala)
Third	Classification of Pluripotent genes using Machine Learning Techniques	Saurabh Kumar, PVNS Ramakrishna (IIIT Bhubaneswar) and G Praveen Kumar (NIT Rourkela)



# Committee & Messages from Chairs

## Technical Program Committee

ACM and ISIGCSE representation	Program Chairs	Local Organising Committee	
Abhiram Ranade   IIT Bombay, President, ACM India	Viraj Kumar   IISc Bangalore	Archana Mantri   Pro Vice Chancellor, Chitkara University, Punjab	
Shekhar Sahasrabudhe   Persistent Systems Ltd., ACM India COO	Amey Karkare   IIT Kanpur	Rajnish Sharma   Local Organizing Chair, COMPUTE 2018	
R. Venkatesh   TCS Research Pune, ISIGCSE		<b>Associate Local Organizing Chairs -</b> Sagar Juneja Saravjit Singh	<b>Members</b> S.N. Panda Sachin Ahuja Meenu Khurana
Abhijat Vichare   ISIGCSE			

## Program Committee Members

Name & Organization	Name & Organization
Alka Agrawal   PES University	Vineeth Paleri   National Institute of Technology Calicut
Chitra Babu   SSN College of Engineering	Venkatesh R   TRDDC
Sridhar Chimalakonda   Indian Institute of Technology, Tirupati	Shekhar Sahasrabudhe   Persistent Systems Ltd., ACM India COO
Neelima Gupta   University of Delhi	Shailaja Sardessai   Goa University
Mamatha H R   PES University	Abhijat Vichare   Consultant
Venkatesh Kamat   Goa University	Ramrao Wagh   Goa University
Amey Karkare   IIT, Kanpur	Aditya Kanade   IISc, Bangalore
Viraj Kumar   IISc, Bangalore	Prabhakar TV   IIT, Kanpur
Madhavan Mukund   Chennai Mathematical Institute	Arnab Bhattacharya   IIT, Kanpur
Mangala Gowri Nanda   IBM	Pinaki Chakraborty   NSIT, Delhi
Umesh Deshpande   NIT, Nagpur	Ansuman Banerjee   ISI, Kolkata
Rajarshi Ray   NIT, Shillong	

## Messages from Chairs



**Dr. Viraj Kumar**

Visiting Prof., DCCC, IISc Bangalore



**Dr. Amey Karkare**

Associate Professor (CSE), IIT Kanpur



**Dr. Rajnish Sharma**

Dean (Research), Chitkara University, India

The overarching theme of COMPUTE 2018 was "Computing for a Better Bharat". One track was centered on a poster competition on utilizing computation to address India-specific challenges across multiple domains, including healthcare, agriculture, literacy and natural language processing. We received 98 submissions, of which 23 were accepted by a Technical Committee of 21 experts from academia and industry. Apart from the competition, a mentorship session was conducted to spur participants to convert their ideas into research papers. The second track aimed improving the quality of Computer Science education and initiating research into India-specific challenges in this domain. The track included talks by industry and academic experts as well as practitioners, and a panel discussion on "The Evolution of Programming".

Organizing a flagship conference of ACM India in Chitkara University campus had always been on our mind. It happened through COMPUTE 2018. I strongly feel that owing to huge support from Chitkara University management, Program chairs, my Associates (Sagar Juneja, Saravjeet Singh, Virender Kadyan) and their team of volunteers, we were able to bring a lot of value on table for all the participating delegates.

Chitkara University will keenly wait for next opportunity to collaborate with ACM again.

# Overview of COMPUTE 2018 Program

## Day 1 – October 12, 2018

<p>Inauguration of Posters Presentation Session by</p> <p><b>Dr. Anil D. Sahasrabudhe</b> <i>Chairman, AICTE</i></p> <p>Inaugural Address by Dr. Anil D. Sahasrabudhe</p>	<p>Two Keynote Talks</p> <p><b>Dr. Abhiram Ranade</b> <i>(President, ACM India)(Professor, CSE, IIT Bombay, Mumbai)</i></p> <p><b>Dr. Pankaj Jalote</b> <i>(Member, ACM India Council) (Professor, IIIT Delhi, New Delhi)</i></p>	<p>ACM Chapters' Summit where 12 chapters presented ACM activities carried out by them in last one year</p>
		

## Day 2 – October 13, 2018

<p>Two Keynote Talks</p> <p><b>Dr. Madhavan Mukund</b> <i>(Past President, ACM India) (Dean, CMI, Chennai)</i></p> <p><b>Dr. Alison Clear</b> <i>(VC, ACM SIG, Lead ACM CC2020) (Program Leader, EIT, New Zealand)</i></p>	<p>Parallel Sessions</p> <p>Faculty Session Invited Talks</p> <p><b>Dr. R. Venkatesh</b> <i>(TCS Research, Pune)</i></p> <p><b>Prof. N S Kumar</b> <i>(Visiting Prof. CSE PES University, Bangalore)</i></p> <p><b>Dr. V. Anantha Narayanan</b> <i>(Amrita School of Engineering, Bangalore)</i></p> <p>Students' Session <b>Tutorial on Blockchain Technology</b></p> <p><b>Mr. Amit Vats</b> &amp; <b>Mr. Vivek Rastogi</b> <i>(Infosys, Chandigarh)</i></p>	<p>Session on SWAYAM Free Online Learning Platform from GOI</p> <p><b>Dr. Manpreet Singh Manna</b> <i>(Former Director, AICTE)</i></p>	<p>Panel Discussion</p> <p><b>How programming is evolving as a profession and how programming should be taught</b></p> <p>Panelists</p> <p><b>Mr. Amitabh</b>   Infosys <b>Dr. R. Venkatesh</b>   TCS Research, Pune <b>Dr. Abhiram Ranade</b>   President, ACM India <b>Dr. Archana Mantri</b>   Chitkara University <b>Mr. Anand Paropkari</b>   Persistent Systems, Pune</p> <p>Moderator</p> <p><b>Dr. Viraj Kumar</b> <i>(IISc Bangalore)</i></p>
<p style="text-align: center;"><b>COMPUTE 2018 Posters' Evaluations</b></p>			

## Day 3 – October 14, 2018

<p>Faculty Session</p> <p><b>Tutorial on How IoT System Design Should be Taught</b></p> <p><b>Mr. Amit K Gupta</b> <i>(Founder &amp; CEO, GT Silicon Pvt Ltd)</i></p>	<p><b>Mentorship Session for the Poster Presentation Participants</b></p> <p>By</p> <p><b>Dr. Viraj Kumar</b> <i>(Visiting Prof., Divecha Centre for Climate Change, IISc Bangalore)</i></p> <p><b>Dr. Amey Karkare</b> <i>(Associate Professor, CSE, IIT Kanpur)</i></p> <p><b>Prize Distribution Posters Presentation Competition</b></p>
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## Inauguration Ceremony

ACM COMPUTE 2018 commenced on October 12, 2018 with the inauguration of Posters Presentation Competition Session by the Chief Guest, Dr. Anil D. Sahasrabudhe - *Chairman, All India Council for Technical Education (AICTE)*. He was joined by Dr. Ashok K Chitkara – *Chancellor, Chitkara University* and Dr. Madhu Chitkara – *Vice Chancellor, Chitkara University, Punjab*. 23 students' teams from different parts of the country competed in the posters presentation competition that was organized on the theme 'Computing for Better Bharat'. Dr. Abhiram Ranade – *Professor IIT Bombay and ACM India President*, Mr. Shekhar Sahasrabudhe – *ACM India COO*, Dr. Viraj Kumar – *Visiting Professor, IISc Bangalore and Program Chair, COMPUTE 2018*, Dr. Alison Clear - *EIT, New Zealand and Lead ACM CC2020*, Dr. Pankaj Jalote – *Professor IIIT Delhi*, Dr. R. K. Soni - *Regional Officer & Director, AICTE*, Dr. Archana Mantri - *Pro Vice Chancellor, Chitkara University, Punjab*, Dr. S. C. Sharma – *Registrar, Chitkara University, Punjab* and Dr. Rajnish Sharma – *Dean (Research), Chitkara University and Local Organizing Chair, COMPUTE 2018* joined the delegation that inaugurated ACM COMPUTE 2018.



*Inauguration by the Dignitaries*

Before the AICTE Chairman delivered his inaugural address to a large audience of 350 delegates comprising of members of ACM India, faculty representatives of ACM Chapters from various colleges and universities, participants of posters presentation competition, faculty, research scholars and students from neighboring institutions; Dr. Archana Mantri - Pro Vice Chancellor, Chitkara University, Punjab extended a warm welcome to all the dignitaries and delegates present. This was followed by a

brief introduction to COMPUTE by Dr. Viraj Kumar - Program Chair for the event (Visiting Professor, IISc Bangalore). He spoke about the theme of COMPUTE 2018 and vision behind selecting this theme. He also shared the statistics of posters presentation with the audience and in the end applauded Chitkara University for wonderfully hosting the conference and also for actively contributing in making a strong technical program for the same.





*Around 350 Delegates attended The inauguration ceremony of COMPUTE 2018*

Dr. Anil D. Sahasrabudhe - Chairman, AICTE began his inaugural address with his candid remarks about Chitkara University. Having reached the campus at least couple of hours before the inauguration he visited various labs and research facilities etc. During the talk, he expressed his extreme happiness and congratulated the founders of the University for developing an excellent



*Dr. Anil D. Sahasrabudhe - Chairman, AICTE delivering his Inaugural Address*

infrastructure and building a great team spirit. He showered his appreciation on the local organizing team of COMPUTE 2018 for conducting such an event on a very relevant theme 'Computing for better Bharat'. Prof. Sahasrabudhe spent an extensive amount of time and efforts in making audience aware about some of the great initiatives being undertaken by AICTE like proposing a model course curriculum, suggesting the need for conducting orientation programs, introducing examination reforms and revamping the model of internships being carried out as a part of engineering programs. He also invited audience to share their feedbacks and suggestions by visiting the AICTE portal.

The inaugural address was followed by two keynote talks. Dr. Abhiram Ranade – Professor IIT Bombay and ACM India President gave a detailed insight into how an introductory programming course should be taught to the students. He touched upon the computer science education scenario in India and emphasized on the need of intensively reforming the important courses like introduction to programming which is a fundamental and requires minimum prerequisite. He discussed about why teaching a programming course is considered difficult worldwide and proposed a new design document and a method of teaching with exciting examples.



The final keynote of the inaugural was delivered by Dr. Pankaj Jalote – Professor IIIT Delhi and he took delegates to the basics of effective teaching and learning in engineering. He discussed important topics like how students develop learning and how subject matter expertise & effective teaching practices contribute to high learning among students. He also touched upon topics like main components of course design, Bloom’s Taxonomy and assessment before concluding his talk with one message each for students and instructors.

### ACM Chapters’ Summit

A one hour session was organized during COMPUTE 2018 where 34 faculty representatives of 12 different ACM Students’ Chapters were given an opportunity to showcase ACM activities being carried by their respective institutions. These chapters presented their annual report through posters presentations which were keenly observed by ACM India Council Members. Two award winning ACM students’ chapters - Pune Institute of Computer Technology and Pimpri Chinchwad College of Engg. & Tech. (PCCET) were given opportunity to make oral presentations. ACM India Council Members addressed the queries of the chapters and encouraged them to take benefits of special grants offered by ACM to the chapters. Following is the list of 12 students’ chapters that had participated in the summit

ABES, Ghaziabad	FISAT, Kerala	SCSVMV, Tamil Nadu
ABES, Ghaziabad (ACM-W)	IIIT Bhubaneswar	SICSR, Pune
Chikara University	Manipal University	PCCET
Deen Dayal Upadhya College, New Delhi	MNM Jain, Chennai	PICT, Pune





# Campus Tour





## Day 2 – Keynote Talks and Invited Talks

Dr. Madhavan Mukund, Dean, Chennai Mathematical Institute & immediate past President of ACM India delivered the first keynote of the morning on Day 2 where he gave a detailed overview of ACM India's initiatives in enhancing computer science education and research since 2010. He discussed about ACM Research Board that offers Doctoral dissertation award, ACM grant to attend international conferences, Academic research summit etc. For improving the education he mentioned about updating UG curriculum, faculty development resources, ACM summer schools. All these initiatives are being driven by ACM education committee and special interest groups (SIGs). Lastly he explained how ACM is taking computational thinking to schools through CSpathshala.

Dr. Alison Clear, Program Leader at Eastern University of Technology, New Zealand and Vice Chairperson, ACM Special Interest Group (SIG) delivered the second keynote address on ACM Computing Curricular 2020 (CC2020) – A Vision on Computing Curricula. She is also the Lead of ACM CC2020. She explained that CC2020 is a multi-organizational global project that would build on CC2005 (*previous curricula document*) by consolidating all new curricular reports and producing futuristic tools for educators, students and employers. She discussed in detail the scope of the project, CC2020 task force, CC2020 activities. She also touched upon the CC2005 and other ACM curriculum documents. In the end she presented the global implications of CC2020 and gave the overview of CC2020 report. About 120 delegates attended the keynote session and it was chaired by Dr. Amey Karkare.



*Dr. Alison Clear - Program Leader, EIT, New Zealand delivering a Keynote*

The keynote session was followed by three invited talks organized exclusively for the faculty delegates of the conference. Dr. R. Venkatesh (TCS Research, Pune), Prof. N S Kumar (Visiting professor at PES University) & Dr. V A Narayanan (Amrita School of Engineering, Bangalore) were the speakers and the discussions were on the topics like need of right kind of assessment techniques to adjudge the abilities of students; computational thinking and teaching techniques. Dr. Viraj Kumar chaired the session



*Dr. R. Venkatesh (TCS Research, Pune) during his Invited Talk*



*Dr. V. A. Narayanan (Amrita Vishwa Vidyapeetham) during his Invited Talk*

The final invited talk of the program was held post lunch on Day 2 and was delivered by Dr. Manpreet Singh Manna, Former Director, AICTE. His talk was centered around SWAYAM - Free online learning platform. He discussed the objective of SWAYAM and how it is impacting teaching and learning by making the teaching learning resources available to all. He also explained how faculty can build their own courses on SWAYAM.



*Dr. Manpreet Singh Manna, Former Director, AICTE delivering a session on SWAYAM*



## Panel Discussion

A panel discussion on the theme Evolution of Programming was organized during COMPUTE 2018 that witnessed participation from panelists from both industry and academia. The session was moderated by Dr. Viraj Kumar and was attended by about 150 delegates comprising of students, research scholars and faculty. The panelists from industry comprising of Mr. Anand Paropkari (Persistent Systems, Pune), Dr. R Venkatesh (TCS Research, Pune) and Mr. Amitabh (Infosys) presented their viewpoint on **how programming is evolving as a profession**. The academic perspective on **how programming should be taught** to meet the industry demand was presented by panelists from the academia - Dr. Abhiram Ranade (President, ACM India and Professor, IIT Bombay) and Dr. Archana Mantri (Pro VC, Chitkara University). Key points of discussion during the session were a) skills required for a graduate to enter the programming profession, b) credibility of institutional mechanism for validating programming related skills, c) skills which are at risk of becoming redundant, d) institutional best practices in terms of faculty development, curriculum development, research etc.



Panelists (L to R) - Dr. R Venkatesh, Dr. Abhiram Ranade, Dr. Archana Mantri, Mr. Anand Paropkari, Mr. Amitabh and Dr. Viraj Kumar (Moderator)

## Tutorials

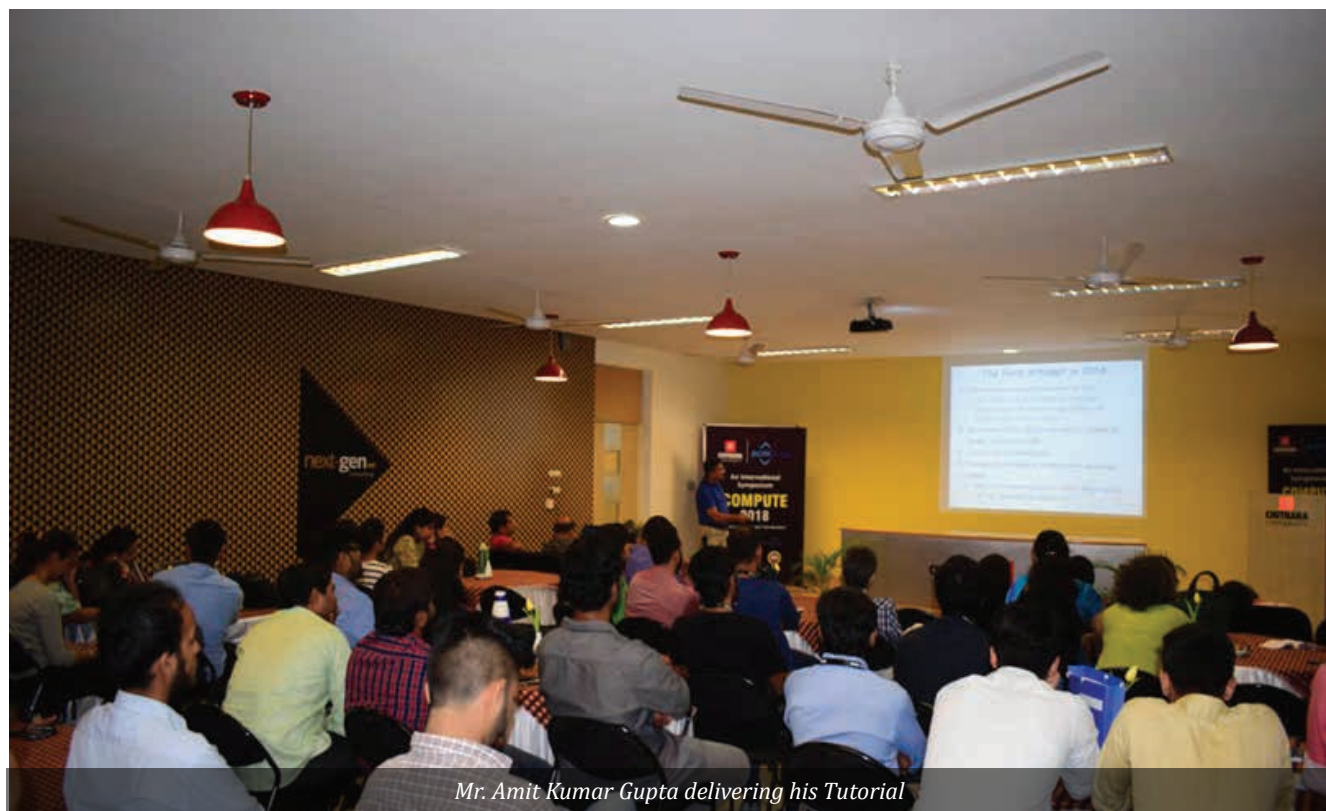
COMPUTE 2018 featured two tutorials one directed toward students and other was targeted for faculty. The tutorial for students conducted on Day 2 of the conference was on Blockchain Technology. Mr. Amit Vats – Head, Blockchain Consulting and Mr. Vivek Rastogi – Head, Delivery of Blockchain Solutions to Government Sector at Infosys Chandigarh were the resource persons. Topics like what is blockchain, how it works, how is world



*Mr. Sagar Juneja introducing Mr. Amit Vats and Mr. Vivek Rastogi*

responding to this technology, how is industry adapting were discussed in the session. Relevancy of the blockchain technology and Infosys portfolio in blockchain technology were also covered in the session. About 35 student delegates attended the tutorial and it was chaired by Mr. Sagar Juneja.

A tutorial on IoT System Design was held on the final day of the conference and was conducted by Mr. Amit Kumar Gupta, founder of GT Silicon Pvt Ltd. About 70 faculty members attended this tutorial which was oriented toward how an industry aligned new age course can be designed on IoT for multi disciplinary participants. Dr. Amey Karkare chaired the session.



*Mr. Amit Kumar Gupta delivering his Tutorial*



## Posters Presentations

One of the key components of COMPUTE 2018 was the Poster Presentations Competition on the theme ‘Computing for Better Bharat’ in which teams showcased how they were using computation to address India specific challenges including challenges for rural India. About 100 posters were received in the competition of which 23 were selected for presentation during the conference. 16 teams attended COMPUTE 2018 and presented their posters. List of participating teams is given below. Top three posters were selected in the posters presentation competition by a panel of jury and they were awarded cash prize of INR 25,000, INR15,000 and INR 10,000 respectively by ACM India. The winning teams are highlighted in the table.

In addition a mentorship session was organized for all participating teams where Dr. Viraj Kumar and Amey Karkare guided students on how they could take their proposed projects/prototypes ahead and what support ACM could offer them in doing so.



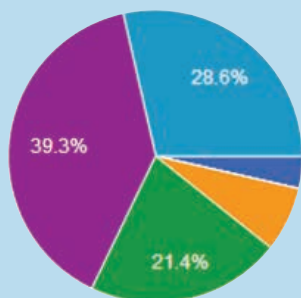
*Dr. Viraj and Dr. Amey delivering a Mentorship Session*

### List of Participating Teams

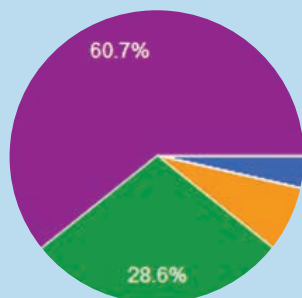
Authors	Poster Title	Affiliation
Rajat Anand, Naveen Aggarwal, Vijay Paul Singh <b>(First)</b>	Automatic triggering of acoustic sensing by human activity recognition using accelerometer	UIET, Chandigarh
Jestin Joy, Sreeraj M <b>(Second)</b>	SignDict: Mobile based ISL learning tool	Federal Institute of Science And Technology, Kerala
Saurabh Kumar, Pvn's Ramakrishna, G Praveen Kumar <b>(Third)</b>	Classification of Pluripotent genes using Machine Learning Techniques	IIIT Bhubaneswar
Rohith P, Sidharth Sasi Kumar	Keyword extraction in Malayalam using Conditional random fields	TKM College of Engineering, Kollam, Kerala
Mr. Shreyas Rajendra Chim, Dr. Geetanjali V. Kale, Miss. Ruchika S. Shete	Keyword extraction in Malayalam using Conditional random fields	Pune Institute of Computer Technology, Pune
Hari Nair S, Abin Shoby	Auto-prediction of Malayalam questions using LSTM	College Of Engineering, Trivandrum
Nikhil Jain, Prateek Chhikara, Prakhar Gupta, Prabhjot Singh, Harpreet Singh	Blood Extraction Device	Thapar Institute of Engineering & Technology, Patiala
Akanksha Chuchrasingh, Iknoor Singh, Vijay Paul Singh, Naveen Aggarwal	Similarity analysis and plagiarism detection for punjabi documents using NLP	UIET, Chandigarh
Paras Madan, Harpreet Singh, Prashant Singh Rana, Neeraj Kumar	Prevention of Wastage of water in paddy fields	Thapar Institute of Engineering and Technology, Patiala
Jwngfu Brahma, Rhitabrat Pokharel, Shobha Tyagi	Connect Job Seeking Labour to Work Available Nearby	Manav Rachna International Institute of Research and Studies, Faridabad
Chinmay Saraf, Sangat Das, Minal Mallawat, Siddharth Sabadra, Devashish Khairnar	Decentralized Audit System Using Blockchain	Pune Institute of Computer Technology, Pune
Sagar Sharma, Rakesh Mishra	S-MASK: Device for Pulmonary Sufferers	Feroze Gandhi Institute of Engineering and Technology, U.P.
Rushikesh Karad, Devashish Khairnar, Apurva Kapse	Visually Impaired Assistant using Convolutional Neural Network and Long Short Term Memory	Pune Institute of Computer Technology, Pune
Ajay Chauhan Rajan, Abhishek Garg, Sagar Juneja	Intelligent Shoes for the blind	Chitkara University, H.P.
Virender Kadyan, Puneet Bawa, Vaibhav Kumar, Deepanshu Sharma	Child Ensign: An assistive pre schooler resource for divyagjan	Chitkara University, Punjab
Nagesh Bhattu Sristy, Satya Krishna Nunna, Somayajulu D.V.L.N, V. Narendra Kumar N	Named Entity Recognition and Relation Extraction from Indian Language Text	NIT, AndhraPradesh

## Feedback

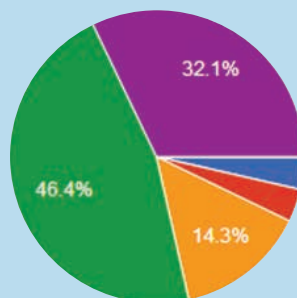
We obtained feedback from the delegates on individual sessions organized during COMPUTE 2018. The feedback was obtained on a 5 point scale where 5 meant excellent and 1 meant poor. Below are the consolidated responses on pie charts.



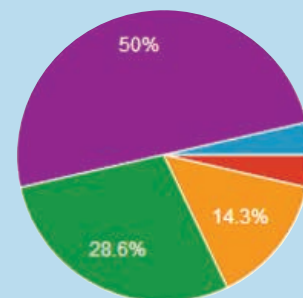
Dr. Anil D. Sahasrabudhe's Talk



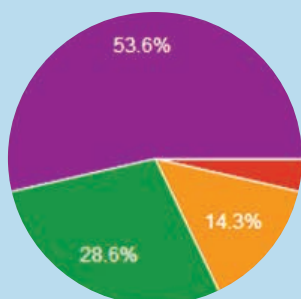
Dr. Abhiram Ranade's Talk



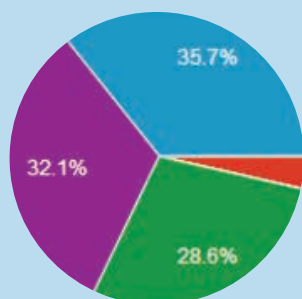
Dr. Pankaj Jalote's Talk



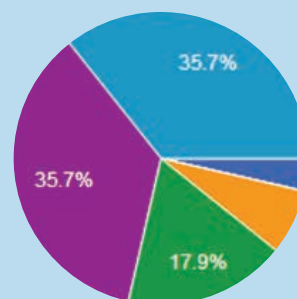
Dr. Madhavan Mukund's Talk



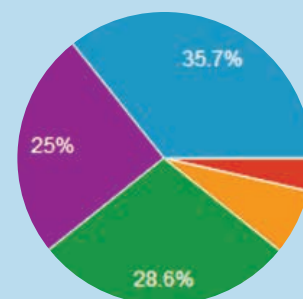
Dr. Alison Clear's Talk



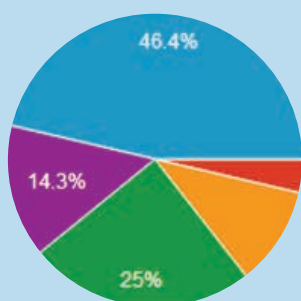
Dr. R. Venkatesh's Talk



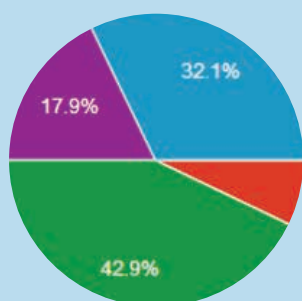
Prof. N.S. Kumar's Talk



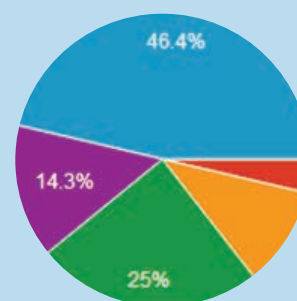
Dr. V.A. Narayanan Talk



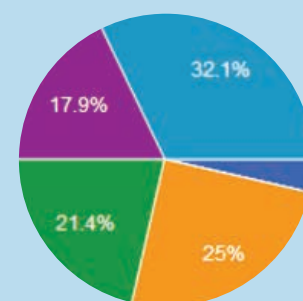
Dr. Manpreet Singh Manna's Talk



Panel Discussion



Tutorial on Blockchain Technology



Tutorial on IoT System Design



Scale



In addition to this, participants gave very encouraging feedback for the local arrangements and logistics. Here are some numbers -

- 53.6% gave 5 star rating for getting timely information about the conference. Additional 25% gave 4 star rating
- Over 64% delegates gave 5 star rating for the venues and their arrangements at which various sessions were held
- 68% and 22% gave 5 star rating and 4 star rating respectively for the support from local organizing team and cooperation from volunteers.
- 54% and 25% respectively gave 5 star and 4 star rating for the local hospitality.

### Feedback from the Guests

*"The organization of the COMPUTE 2018 was very good. We were treated very well. We were taken around the university campus very well and it was a wonderful opportunity for me personally to know what is being done at Chitkara University"*

**Dr. Venkatesh R. (TCS Research)**

*"Sessions of COMPUTE 2018 were very well attended and discussions were very-very nice. Well Done Chitkara University! On behalf of ACM India I can safely say it was a very well organized ACM COMPUTE 2018".*

**Dr. Abhiram Ranade (IIT Bombay)**

*"COMPUTE is a flagship event of ACM India going on for about 10 years now. This year the theme was computer science education and what better place to organize it than Chitkara University with very nice atmosphere and ambience".*

**Mr. Shekhar Sahasrabudhe (ACM India COO)**



# UPCOMING CONFERENCES AT CHITKARA UNIVERSITY



## 6th Edition of International Conference on Wireless Networks and Embedded Systems

# WECON 2018

*Contributing Towards Improving  
Quality of Life through Technology*

**Date:**  
16<sup>th</sup> - 17<sup>th</sup> November, 2018

**Venue:**  
Chitkara University, Punjab (India)

**Website:**  
[www.chitkara.edu.in/wecon](http://www.chitkara.edu.in/wecon)



## Sixth International Conference on Transformations in Engineering Education (ICTIEE 2019)

**Organized by:** Indo Universal Collaboration for Engineering Education (IUCEE) & Chitkara University

**In Collaboration with:** American Society for Engineering Education (ASEE)  
International Federation of Engineering Education Societies (IFEES) & ACM India

[www.ictiee.org/ictiee2019](http://www.ictiee.org/ictiee2019)

**Date:** 10<sup>th</sup>-11<sup>th</sup> January, 2019 | **Venue:** Chitkara University, Punjab