7th International Conference on
Big Data Analytics

December 17 to 20, 2019, Ahmedabad University, Ahmedabad, India

http://www.bda2019.org

BDA 2019

Sponsorship Opportunities Plan

We are privileged to inform that **7th International Conference on Big Data Analytics (BDA 2019)** will be held at Ahmedabad University, Ahmedabad, Gujarat, India during December 17 to 20 2019. The conference committee of BDA2019 requests sponsorship from companies, organisations and research institutes.

BDA2019 is a leading international conference in the areas of Big Data Analytics and Data Science. It provides an international forum for researchers and industry practitioners to share their original research results, practical experiences and thoughts on big data from different perspectives including storage models, data access, computing paradigms, analytics, information sharing and privacy, redesigning mining algorithms, open issues, and future research trends.

BDA2019 will provide a great opportunity for interactions among researchers, academicians, professionals, policy makers, technocrats, entrepreneurs, and students. There are various options for sponsorship, partnership, and participation for BDA2019. Your support and participation will help not only BDA2019 conference but also the research in the area of Big Data Analytics and Data Science to achieve higher level of milestones.

I request you to please consider appropriate sponsorship option generously for BDA2019.

Thanking you.

With regards,

(Anil Roy)
Chair, Sponsorship Committee,
BDA2019 Conference

Benefits of Sponsorships

Sponsors will have the opportunity to reach over 250 Big Data Analytics experts including researchers and industry practitioners such as developers, quality assurance and project managers. In return for your sponsorship, you will receive company recognition, as well as promotion on the Conference web site, in the Conference program and in all promotional material. Participation will also provide your organization with an opportunity to network with leaders, educators, researchers, government officials and other key stakeholders including students and members of professional bodies.

Program and Topics

Recently, data generation at the scale of terabytes, petabytes and exabytes have become common place in many scientific and commercial domains. Streaming data, social media content, electronic medical records, astronomy surveys, genomic and proteomic studies and similar areas generate data at a scale that is becoming increasingly difficult to manage using traditional database technologies. Big Data is an umbrella term used for such massive collections of data. Besides volume, analytics has to face challenges like heterogeneity, timeliness, and complexity, velocity and privacy issues. The other challenge is to fuse data sources - of same type or multi-modal and perform joint analytics on the integrated data. The scale of such data poses significant challenges for analytics, going beyond what can be supported by conventional data, storage and retrieval models.

The Seventh International Conference on Big Data Analytics (BDA 2019) is set in this backdrop. It provides an international forum for researchers and industry practitioners to share their original research results, practical experiences and thoughts on big data from different perspectives including storage models, data access, computing paradigms, analytics, information sharing and privacy, redesigning mining algorithms, open issues, and future research trends.

The first BDA conference was successfully held in New Delhi, India, in December 2012 as a part of collaboration between the University of Delhi, India and the University of Aizu, Japan. The enthusiastic response to this event prompted the decision to make the BDA conference as an annual event. Except in 2016, the conference is being held every year. The seventh international conference on Big Data Analytics (BDA 2019) will be held in Ahmedabad, India during December 17 to 20, 2019. The conference is hosted by Ahmedabad University, Gujarat, India.

Information on previous BDA conferences:
- BDA 2018 : BDA-2018 was held in NIT Warangal in December, 2018.
- BDA 2017 : BDA-2017 was held in IIIT Hyderabad in December, 2017.
- BDA 2015 : BDA-2015 was held in NIT Warangal in December, 2015.
- BDA 2014 : BDA-2014 was held in IIT Delhi in December, 2014.
- BDA 2013 : BDA-2013 was held in Mysore, India in December, 2013.
- BDA 2012 : The first BDA conference was held in Delhi, India, in December 2012

Topics of Interest
Analytics as a Service; Architectural Design for Big Data; Big Data Analytics for Governance; Conceptual / Cognitive / Programming Models for Big Data Analytics; Clustering of Big Data; Data Fusion and Multi Modal Analytics; Data Models for Big Data Analytics; Domain-specific Analytics; Index Structures for Big Data Analytics; Interaction Design for Exploratory Analytics; Machine Learning techniques for Big Data; Large-Scale Recommendation Systems and Graph Analysis; Model Discovery from Big Data; NoSQL and non-standard Data Models; Physical Data Organization for Big Data; Predictive Modelling; Pattern and Rule Mining from Big Data; Scalability and Performance Issues; Security, Privacy and Legal Issues Specific to Big Data; Semantics of Big Data; Streaming Data Analytics; Summarization and Materialized Views; Topic Modelling; Unstructured and Semi-structured Data Mining.

Who will attend?
The conference will see researchers, academicians, policy makers and implementers from India and abroad gathering to present important findings and new trends and challenges in all sub-fields of Big Data Analytics, Knowledge Discovery and Data Mining. The BDA2019 Conference is expected to attract approximately 250 research scientists, academicians, post-graduate and research students from India and abroad.

Conclusion
Being a research and educational institution, Ahmedabad University and other noted Big Data Analytics and Data Mining researchers in India have made efforts to organize a conference to India. Your support will provide a valuable opportunity for the Indian research, industry and student community to know cutting edge developments in the Big Data Analytics, Data Mining and related fields as well as encourage research in Indian context

Organization Committee

Chief Patrons

Pankaj Chandra
Vice Chancellor, Ahmedabad University,
Ahmedabad, Gujarat, India

Sudhir Jain
Founding Director, IIT, Gandhinagar,
Gujarat, india

Honorary Chairs

General Chair

K.S. Dasgupta
Director, DA-IICT,
Gandhinagar, Gujarat, India

Sunil Kale
Dean, School of Engineering
And Applied Science,
Ahmedabad University, India

Rekha Jain
Professor, IIM,
Ahmedabad, Gujarat, india

Sanjay Chaudhary
Professor and Associate
Dean, Ahmedabad
University, India

Steering Committee Chair

Program Committee Chairs

Sponsorship Chair

P. Krishna Reddy
IIIT Hyderabad,
India

Sanjay Kumar Madria
Missouri University of Science
and Technology, USA

Philippe Fournier-Viger
Herbin Institute of
Technology (Shenzhen), China

Anil Roy
DA-IICT, India

Organizing Committee Chairs

Workshop Chair

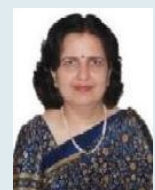**Mehul Raval**
Pandit Deendayal
Petroleum University, India

Kumar Shashi Prabh
Ahmedabad University,
India

Srikrishnan Divakaran
Ahmedabad University, India

Punam Bedi
University of Delhi, India

Publicity Chairs

Shelly Sachdeva
National Institute of
Technology Delhi, India

M.T. Savaliya
Vishwakarma Government
Engineering College, Ahmedabad,
India

Tutorial Chairs

Mukesh Mohania
IBM, Australia

Takahiro Hara
Osaka University, Japan

Financial Chair

Dhaval Patel
Ahmedabad University,
India

Publication Chair

P. Krishna Reddy
IIIT Hyderabad, India

Website Chair

Pratik Trivedi
Ahmedabad University, India

Organizing Committee

Barbara Moraswka
Ahmedabad University

Anurag Lakhlani
Ahmedabad University

Sanjay Sampat
Government Polytechnic

C.K. Bhensdadia
Dharmsinh Desai University

Amit Ganatra
CHARUSAT University

George Varughese
Ahmedabad University

Rahul Bhathiji
Ahmedabad University

Kinjal Arya
Ahmedabad University

BDA-2019 Sponsorship Details

1.   **Platinum**
     Will be restricted to a limited number of organizations, receives following benefits
     - Corporate slide to be shown at regular intervals throughout main Conference sessions (supplied by sponsor)
     - Highlighted branding on BDA-2019 website with a link to sponsor's website
     - Conference venue backdrop and acknowledgment in proceedings and program booklet
     - Literature inclusion in delegate kits (max three pages)
     - FIVE full conference registrations (including Banquet dinner)
     Sponsorship amount: **Rs. 2.00 lakhs**

2.   **Gold**
     Receives the following benefits
     - Branding on BDA2019 website with a link to sponsor's website
     - Conference venue backdrop, acknowledgment in proceedings and program booklet
     - Literature inclusion in delegate kits (max two pages)
     - THREE full conference registrations (including Banquet dinner)
     Sponsorship amount: **Rs. 1.00 lakh**

3.   **Silver**
     Receives the following benefits
     - Branding on BDA2019 website and venue backdrop
     - Acknowledgement in proceedings and program booklet
     - TWO full conference registration (including Banquet inner)
     Sponsorship amount: **Rs. 50,000**

Additional Sponsorship Opportunities

Banquet Dinner
Date: December 18, 2019, time: 8:00 p.m.
Fee: **Rs. 1.00 lakh** (Gold Sponsorship equivalent entitlement)

Delegate bags
250 Numbers
Sponsorship fee: **Rs. 1.00 lakh**
(Gold Sponsorship equivalent entitlement)

T-Shirts
250 Numbers
Fee: Sponsorship fee: **Rs. 50,000**
(Silver sponsorship entitlement)

Cultural Program
(to be held on 18 Dec 2019, before Banquet dinner) Fee: **Rs. 1.00 lakh**
(Gold Sponsorship equivalent entitlement)

Logo on Long-sleeved shirts:
Conference organizers and volunteers may wear long-sleeved shirts with the conference logo on one shoulder. Space is available for a sponsor logo on the sleeve or back of the shirts. An estimate will be provided on obtaining clarity on number of registrations OR interested organizations may order on their own with their vendors after consulting Sponsorship Committee Chair or Conference General Chair, for his consent. Please contact the Conference Sponsorship Committee Chair, Dr. Anil Roy (anil_roy@daiict.ac.in) or Conference General Chair, Dr. Sanjay Chaudhary (sanjay.chaudhary@ahduni.edu.in) for many more options and enquiries.

Seventh International Conference on Big Data Analytics 2019

Members of Organizing Committee

Patrons

Pankaj Chandra

Professor Pankaj Chandra is the Vice Chancellor & Chairman, Board of Management, Ahmedabad University. He was the Director of the Indian Institute of Management, Bangalore (IIMB) and a Professor of Operations and Technology Management at IIMB. He has taught at various institutions such as McGill University in Montreal, University of Geneva, The Wharton School, University of Pennsylvania, International University of Japan, Cornell University, Renmin University, Beijing, and IIM Ahmedabad (IIM A). He has worked briefly with The World Bank in Washington DC. He was the first Associate Dean (Academic) at ISB, Hyderabad. He was part of the founding team at the Centre for Innovation, Incubation and Entrepreneurship (CIIE) at IIMA and its first Chairperson. Professor Chandra has served as member of the Government of India Committee on Clusters for Development of the Informal Sector. He was a member of the two High Powered Committees the Government of India Committee on Rejuvenation of Higher Education (Yashpal Committee) that re-looked at the Indian Higher Education system as well as the committee on the Autonomy of Central Institutions. He had published extensively in international refereed journals and has served on the editorial boards of several international journals. He has authored a book on "Building Universities that Matter: Where are Indian Institutions Going Wrong?" (Orient BlackSwan, 2017) and edited a book titled "Technology Practices, and Competitiveness: The Primary Textile Industry in Canada, China and India" (Himalaya Publishers, 1998). Professor Chandra has been involved in several startups, has also been a consultant to large Indian and multi-national firms and serves on the Boards of several firms and institutions.

Sudhir Jain

Dr. Sudhir Jain is a Founding Director of IIT, Gandhinagar and he was leading the institute during 2009 to 2018. Dr. Sudhir Jain is an active academic and a passionate academic administrator. He holds a Bachelor of Engineering from the University of Roorkee, and Masters and Doctoral degrees from the California Institute of Technology, Pasadena. He was elected to the Board of Directors of the International Association for Earthquake Engineering in 2000, and is currently its President. He also served on the Board of Directors of the World

Seismic Safety Initiative from 2002 to 2009. He was elected Fellow of the Indian National Academy of Engineering in 2003, and was conferred Life Membership by the New Zealand Society for Earthquake Engineering (NZSEE) in 2013. He has been on the faculty of IIT Kanpur (IITK) since 1984. Dr. Jain has experimented with numerous ideas in curriculum, student affairs, faculty recruitment and faculty management. The Institute under his leadership has successfully created several initiatives to inculcate and promote excellence by the faculty and students. His work has had tremendous impact on earthquake engineering practice and education in India. He was instrumental in development of several important seismic codes in India, and has trained a huge number of professional engineers and college teachers in earthquake engineering through his highly successful continuing education programmes. Dr. Jain has been consultant for major projects, such as bridges, petrochemical pipelines and concrete dams and has published more than 150 scholarly papers. His research interests include study of damaging earthquakes, reinforced concrete buildings, bridges, and seismic codes.

Honorary Chairs

Dr. K.S. Dasgupta

Dr. K.S. Dasgupta is a Director of DA-IICT, Gandhinagar, India and he holds a PhD (Engineering) from Indian Institute of Technology, Bombay. Prior to joining DA-IICT, Dr. K.S. Dasgupta served as the Director of Indian Institute of Space Science and Technology (IIST), Trivandrum, a deemed University under the aegis of Department of Space, Government of India, for five and half years. He was responsible in strengthening academic and research programs, setting up modern laboratories specially the nano-satellite and robotics laboratories and facilitated association of IIST students with Engineers and Scientists in Space Research Centres. Dr. Dasgupta began his career with the Space Application Centre, Indian Space Research Organization in November 1974 as an Engineer (Scientist cadre) and served in various capacities notably as Deputy Director, Satcom Navigation Payload Area (SNPA) and Director, Development and Educational Communication Unit (DECU). Dr. Dasgupta has several publications to his credit in National and International Journals and Conference Papers on Communication Network, Information Security,

Computer Applications, etc. He has co-authored the book 'Handbook of Research in Mobile Business Technical, Methodological and Social Perspective.' His field of specialization includes Signal Processing, Digital and Satellite Communication, Computer Network and Computer Architecture. He is a Fellow of IETE, Senior Member of IEEE and Life Member of Computer Society of India.

Sunil Kale

Professor Sunil Kale has joined Ahmedabad University as the Dean of School of Engineering and Applied Science. He has been the Dean of Undergraduate Studies, and Head, Department of Mechanical Engineering at IIT Delhi. Professor Kale has over thirty years of experience in teaching and research in mechanical engineering, in particular, in heat and mass transfer, fluid mechanics, combustion and fire dynamics. He completed his PhD and Masters in Mechanical Engineering from Stanford University in 1984 and 1981 respectively. He has done his Bachelors from IIT Delhi in 1977 and has been associated with it since 1989 as a faculty member. He began his career as an Assistant Engineer with Tata Consulting Engineers, Bangalore in 1977 for three years and then from 1985-89, he was a Research Assistant Professor with the Mechanical & Aerospace Engineering Department of West Virginia University, Morgantown, USA. He has mentored IIT Mandi and IIT Ropar on various aspects. He has developed a core mechanical laboratory with emphasis on hands-on work, real-life engineering, and experimentation, and a visualization studio for teaching and design. He has several publications on topics such as experimental study of the effects of water mist characteristics on pool fire suppression, burning of vertical cloth panels, air flow through a non-air-conditioned bus with open windows, and flows through micro-channels. His current research interests are on fluid mechanics, fire dynamics, combustion, vehicular emissions, and energy.

Rekha Jain

Dr. Rekha Jain is a Professor at IIM, Ahmedabad and Associate Coordinator, Centre for Telecom Policy Studies, IIM, Ahmedabad. She is an Executive Chair of the IIMA-IDEA Telecom Centre of Excellence (IITCOE-www.iitcoe.in), 2008 present. She is a recipient of senior Fulbright Fellowship on Telecom Regulation in 1997-98. Recently concluded an International Study on IT Applications and Telecom Policy in South-East Asian Countries. Research and teaching interest in telecom policy and regulation in the areas of rural telecom, spectrum management and local exchange competition. Her Research and teaching interests are in the area of Information System Implementation. She has published extensively in national and international journals.

General Chair

Sanjay Chaudhary

Dr. Sanjay Chaudhary is a Full Professor and Associate Dean at School of Engineering and Applied Science, Ahmedabad University. Earlier, he was a Professor as well as Dean (Academic Programs) at Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT), Gandhinagar, India. His research areas are Distributed Computing, Cloud Computing, Blockchain Technology, Big Data Analytics, and ICT Applications in Agriculture and Rural Development. He has authored six books and eight book chapters. He has published more than hundred research papers in international conferences, workshops and journals. He is an active member of program committees of leading International conferences and workshops as well as review committees of leading journals. He has received research grants from leading organizations including IBM, Microsoft and Department of Science and Technology, Govt. of India. Five PhD candidates have completed PhD under his supervision and four PhD students are currently working under his guidance. He holds a doctorate degree in computer science from Gujarat Vidyapeeth. He has worked on various large-scale software development projects for corporate sector, co-operative sector, and government organizations. He is actively involved in various consultancy and enterprise application development projects. He is a senior member of IEEE and Computer Society of India, a patron of Computer Society of India, Ahmedabad Chapter.

Steering Committee Chair

P. Krishna Reddy

Professor P. Krishna Reddy is a Professor at IIIT, Hyderabad since 2002. During 2013 to 2015, he was a Program Director, ITRA-Agriculture and Food, Information Technology Research Academy (ITRA), Government of India. During 1997 to 2002, he was a research associate at the Center for Conceptual Information Processing Research, Institute of Industrial Science, University of Tokyo. He has received PhD degree in Computer Science from Jawaharlal Nehru University, New Delhi. His research interests include data mining, database systems and IT for agriculture. He has published about 145 refereed research papers.

Program Committee Chairs

Sanjay Madria

Sanjay Kumar Madria received his Ph.D. in Computer Science from Indian Institute of Technology, Delhi, India in 1995. He is a Curators Distinguished Professor in the

Department of Computer Science at the Missouri University of Science and Technology (formerly, University of Missouri-Rolla), USA. He has published more than 250+ Journal and conference papers in the areas of mobile computing, sensor networks, security, cloud computing, etc. He has graduated 45 students which includes 12 PhDs. He recently co-authored a "Secure Sensor Cloud" book based on his 10 years of research in this area, published by Morgan-Claypool in 2018. He earlier co-authored another book entitled "Web Data Management: A Warehouse Approach" published by Springer-verlag in 2004. He serves in steering committees of IEEE SRDS, IEEE MDM and BDA series of conferences. He is serving/served as PC member of various conferences such as VLDB, MDM, CIKM, ICDCS, and reviewer for many reputed journals such as IEEE TKDE, IEEE Computer, ACM Internet Computing, IEEE TMC, IEEE TSC, etc. Dr. Madria has given tutorials on different areas such as mobile data management, secure sensor cloud, and big data management for smart city applications in many international conferences like Middleware, MDM and SRDS. He is a regular invited panelist in NSF, NSERC (Canada), Hong Kong Research Council and Sweden Council of Research. He received faculty excellence award six times from his university, Japanese Society for Promotion of Science invitational fellowship in 2006, and Air Force Research Lab's visiting faculty fellowship from 2008 to 2018. His research is supported by multiple grants from several agencies such as NSF, DOE, NIST, AFRL, ARO, ARL, ORNL, UM research board and from industries such as Boeing and Honeywell. He is IEEE Senior Member, served as IEEE Distinguished speaker, and currently, he is a speaker under ACM Distinguished Visitor program.

Philippe Fournier-Viger
Dr. Philippe is a full Professor at Harbin Institute of Technology (Shenzhen), China. He completed his Ph.D. in Computer Science from University of Quebec in Montreal (Canada). His research interests are Data Mining, Big Data, Artificial Intelligence, Pattern Mining, Itemset Mining, High utility patterns, Sequential patterns, Sequence Prediction, Applications of Data Mining. He is the founder of the popular SPMF data mining library, offering more than 130 algorithms, cited in more than 700 research papers since 2010. He has also participated in more than 230 research papers, which have received more than 3600 citations.

Organizing Committee Chairs

Mehul Raval
Dr. Mehul S Raval is a full professor at School of Technology, Pandit Deendayal Petroleum University. He has served at Ahmedabad University during 2013 to 2018, with DA-IICT (2008-2013), Gandhinagar and SCET, Surat (1997 - 2008), India. Dr. Raval visited Graduate School of Natural Science and Technology, Okayama University, Japan during July- August 2016 and he was an Argosy visiting Associate Professor at Olin College of Engineering, US. He is an alumnus of College of Engineering Pune (COEP), established in 1854). He is senior member of IEEE and has professional association with many other bodies. He has published extensively and worked on research projects.

Shashi Prabh
K. Shashi Prabh is an associate professor at School of Engineering and Applied Science, Ahmedabad University. He has received the M.S. and Ph.D. degrees in Computer Science from New York University in 2001 and University of Virginia in 2007, respectively. He also has master's degrees in Physics from IIT Delhi and Boston College. From 2007 to 2013, he was at Real-Time Systems Research Center, an associated laboratory of INESC Porto, Portugal. From 2013 to 2018, he was a faculty member in Computer Science and Engineering Department of Shiv Nadar University. After a brief stint at ABB Corporate Research Center in Bangalore, he is with Ahmedabad University since 2019. He has made research contributions in the areas of wireless communication, body area networks and wireless sensor networks. His current research focus includes wireless networks, Internet of Things and Cyber-Physical Systems. He is a member of ACM and IEEE. He received 2013 GREENCOM best paper award.

Sponsorship Chair

Anil Roy
Dr. Anil Roy is an alumnus of IIT Delhi (India) from where he earned his Ph.D. in Physics in 1993. He was associated with Centre for Theoretical Studies at Indian Institute of Science, Bangalore during 1993-94 followed by the Optical Fiber group at IIT Delhi till 1996 before joining DA-IICT (his current organization) as faculty in 2003. His main academic interest areas are sensors, image processing, fiber optics, semiconductor physics, and applications of technologies for humanitarian challenges. Dr. Roy is a senior member of IEEE. He has been serving on the AdCom of IEEE Sensors Council as Member-at-Large since 2013. He is the Chair of IEEE Conference Publications Committee, 2019 and also a member of IEEE Conferences Committee, 2019. Dr. Roy was the General co-Chair of IEEE SENSORS 2018, IEEE R10 International Spring Conference (TenSymp 2015), the IEEE Conference on Technologies for Humanitarian Challenges 2009 and IEEE INDICON 2009. He was the Publications co-Chair of International Symposium for

Circuits and Systems (ISCAS 2017). He is the Technical Program Committee Chair of IEEE INDICON 2019. Dr. Roy is the recipient of 2017 IEEE Sensors Council Meritorious Service Award, 2012 IEEE MGA Leadership Award, 2010 IEEE Region 10 Outstanding Volunteer Award, and 2007 IEEE Region 10 Outstanding Counselor Award.

Finance Committee Chair

Dhaval Patel

Dr. Dhaval Patel is currently working as Assistant Professor at School of Engineering and Applied Science - Ahmedabad University, India. He was an Argosy visiting Associate Professor at Olin College of Engineering, US. He has published research papers in peer-reviewed journals and conferences. He is a TPC member of many international conferences in U.S.A and India. He is contributing his services as a reviewer in International and National Journals like IEEE Transaction on Wireless Communications, IEEE Access, NASA Journal of Physical Science, IEEE Communication letters, etc. Furthermore, he is an executive committee member of professional bodies like IEEE Signal Processing Society, ISTE and IETE. His area of interest includes Cyber Physical System, 5G Wireless Networks, Non-parametric statistics, Cognitive Radio-Physical Layer, MIMO Communications and Statistical Signal Processing.

Workshop Chairs

Srikrishnan Divakaran

Srikrishnan Divakaran completed his Ph.D. in Computer Science in 2002 from Rutgers University, New Brunswick, USA. Then, from 2002 to 2008 he worked as an Assistant Professor in the Computer Science department at Hofstra University, Long Island, NY, as Associate Professor at DAIICT from 2009 to 2016 before joining School of Engineering and Applied Sciences at Ahmedabad University in 2017. Dr. Divakaran has nearly 20 years of research and over 15 years of teaching experience and over five years industry experience at leading multi-national companies in computing and finance. Dr. Divakaran has taught a wide range of courses in Computer Science as well as related disciplines like *Bioinformatics and Operations Research and* has a strong research background in *designing algorithms for problems with applications in bioinformatics / computational biology, distributed systems and operations research.*

Punam Bedi

Punam Bedi is a Professor in the Department of Computer Science, University of Delhi since March 2007.

She worked as officiating Director, Delhi University Computer Centre from Oct. 2017 to April 2018. She was the Head of Department of Computer Science, University of Delhi during Oct. 2005 - Oct 2008. She also worked as the acting Director, Delhi University Computer Centre from June 26 to Oct. 23, 2009. Before joining the Department of Computer Science, University of Delhi, she worked as a Lecturer/ Reader in the Deshbandhu College, University of Delhi from January 1987 to January 2002. She did her Doctorate in Computer Science from University of Delhi in 1999. She did her M.Tech. in Computer Science from IIT Delhi in 1986 and M.Sc. in Mathematics from IIT Delhi in 1984. She is mainly working in the area of designing and developing intelligent systems. She is using multi agent systems for the development of Intelligent Systems. Fuzzy Logic, Trust and Web Mining are the main techniques used for personalization of these systems based on users' interests.

Tutorial Chairs

Mukesh Mohania

Dr. Mukesh is a Director of AI, Blockchain and Cognitive Analytics at IBM Research, Australia. He is awarded 'Experienced Distinguished Engineer' with a demonstrated history of working in Information Management and Blockchain, particularly, Data Curation, Information Integration, Master Data Management, Big Data and Analytics, Data Warehousing, Autonomic Computing, Artificial Intelligence. He is an expert in mapping complex business problems into technical requirements and arrive at the outcome-based solutions and linking to strategy to execution. He is excellent in managing employees and developing them, and promoting the work culture, actively contributing in developing the leadership skills and helping in developing communities. He has proven organizational setup, establishing strong and committed geographically distributed teams and cross- functional leadership. He has co-invented more than 50 granted patents. He completed Doctor of Philosophy (Ph.D.) in Computer Science from IIT Bombay.

Takahiro HARA

Takahiro HARA received the B.E, M.E and Dr.E degrees in Information Systems Engineering from Osaka University, Osaka, Japan, in 1995, 1997, and 2000, respectively. Currently, he is a full Professor of the Department of Multimedia Engineering, Osaka University, Japan. His research interests include database systems, mobile computing systems, Web mining, and mobile ad hoc networks.

Publicity Chairs

Shelly Sachdeva

Shelly Sachdeva received the Ph.D. degree in Computer Science in 2012 from University of Aizu, Japan. She is currently working as Associate Professor and Head of Department (Computer Science) with National Institute of Technology (NIT), Delhi, India. Her main research interests are in the area of database systems, the high-level query interfaces, security in databases, computational intelligence, interoperable electronic health records and data quality for health informatics. She received Japanese MEXT Scholarship from Apr, 2009 - Mar, 2012. She attended many conferences, workshops and presented posters/ papers. She is reviewer and member of several transactions and international conferences including IEEE, ACM. She aims to mount Women in Engineering. She is member of IEEE, Association of Computer Electronics and Electrical Engineers (ACEEE), CSTA and openEHR organization. She has published more than 58 articles in reputed/ referred journals and conferences.

Mansukh Savaliya

Mansukh Savaliya is an Associate Professor and Head of the Computer Engineering Department at Vishwakarma Government Engineering College, Chandkheda, Ahmedabad. He is also serving as Associate Dean (Engineering) in Gujarat Technological University. He has 28 years of teaching experience and contributed in different ways in technical education. He is a prolific writer and has contributed as author/Co-author in 20+ books in various subjects like C/C++/Java Programming, Data Structures, Microprocessors and Web Technology. He has delivered number of expert lectures on technical and pedagogical topics to students and faculties at various reputed institutes and universities. His areas of interest are Microprocessors, OO Programming, Operating Systems, Web technology, Data Science and teaching-learning Pedagogy. He has served as member of various academic and IT committees of Government and various universities. He has always remained active in various conferences as coordinator, reviewer and member of various committees. He was awarded Chapter Patron Award by Computer Society of India in 2013-14 and Pedagogical Innovation Award by GTU Innovation Council in 2019.

Web Committee Chair

Pratik Trivedi is a senior Lecturer with School of Engineering and Applied Science of Ahmedabad University. His research areas are VLSI Signal Processing, Computer Architecture, and Field Programmable Gated Arrays. He was a visiting scholar at Olin college of engineering, USA.

Keynote and Invited Speakers

Keynote Talk - 1: "From GPS, Google Maps & Uber to Spatial Computing", by Dr. Shashi Shekhar, McKnight Distinguished University Professor at the University of Minnesota, USA

Abstract: Spatial computing and spatial big data have already enriched billions of lives via pervasive services (e.g., navigation and ride-sharing apps), ubiquitous systems (e.g., geographical information system, spatial database management system), and pioneering scientific methods (e.g., spatial statistics). With 2 billion receivers in use for location and time services, the GPS has become a critical infrastructure for the world economy for use cases ranging from precision agriculture to navigation to ride sharing to smart cities. Government and industry have recently started major initiatives such as NASA Earth Exchange, Amazon Earth on AWS, Google Earth Engine, Microsoft AI for Earth, and NSF Navigating the New Arctic for meeting grand challenges facing our changing planet such as climate change and environmental sustainability. However, many spatial data science questions need to be probed to realize the transformative potential. This talk shares a perspective on the societal accomplishments, opportunities, and research needs in spatial computing, spatial big data and spatial data science.

Dr. Shashi is a leading scholar in Geographic Information Systems (GIS). He co-edited an Encyclopedia of GIS and co-authored a Spatial Databases textbook. He received the IEEE-CS Technical Achievement Award, the UCGIS Education Award and was elected a Fellow of the IEEE and the AAAS. Shashi is a co-Editor-in-Chief of Geo-Informatica journal (Springer) and has served on the Computing Community Consortium Council, National Academies' committees (Mapping Sciences, GEOINT Workforce). He co-organized the "From GPS and Virtual Globes to Spatial Computing 2020" workshop to catalyze community research visions.

Keynote Talk - 2 by Dr. Elizabeth Chang, Professor, University of New South Wales at the Australian Defence Force Academy, Canberra, Australia

Abstract: Professor Elizabeth Chang is Professor of Logistics and Canberra Fellow at UNSW at Australian Defence Force Academy (ADFA). Professor Chang leads the Defence Logistics research group at UNSW Canberra, targeting the key issues in Logistics ICT, Defence Logistics and Sustainment, Big Data Management, Predictive Analytics, IoT and Cyber-Physical Systems, Trust, Security, Risk and Privacy. She has delivered over 50 Keynote/Plenary speeches largely at major IEEE Conferences and most recently in the areas of Semantics, Business Intelligence, Big Data Management, Data Quality and the like. Her academic achievement includes 24 Competitive Research Grants, including 12 Australian Research Council (ARC) Grants worth over $15 million. She has supervised/co-supervised 42 PhD theses to completion, 21 Master theses and 16 Post-docs. She has published 7 authored books, over 500 international journal papers and conference papers with an H-Index of 47 (Google Scholar) and over 12,000 citations.

Keynote Talk - 3: "Deep Learning Models for Medical Image Analysis: Challenges and Future Directions", by Dr. Ramesh Agrawal, Dean, School of Engineering, Jawaharlal Nehru University, New Delhi

Abstract: Medical imaging modalities such as X-rays, CT scan, ultrasound, magnetic resonance imaging, functional magnetic resonance imaging (fMRI) exist to measure physical property of the human body. These modalities have raised the capabilities of clinicians by providing visualization of the internal details of human body with no or minimal invasion and has thus reduced the surgical procedures. However, manual analysis of these medical images is challenging due to several reasons such as extensive medical data, the bias involved in subjective assessment by clinicians, presence of the fine details that ordinarily cannot be observed through visual inspection. Machine learning methods have been employed to analyse medical images, which supports the clinician in the diagnosis of peculiar diseases that are difficult to identify otherwise. Recently, deep learning method is proposed which has the capability to learn or extract high-level, complex abstractions to represent samples through a hierarchical learning process from training samples. The power of deep learning lies in its capacity to analyse and learn patterns from large volume of data in unsupervised manner, which can be a valuable tool for Big Data Analytics where most of the available raw data is largely unlabeled and uncategorized. Additionally, the availability of GPU allows us to analyse unprecedented amounts of data. In my talk, I will discuss state of the art deep learning models for medical image segmentation and classification for a wide variety of health application areas. Finally, the talk will also focus on current challenges and future research directions for medical image analysis.

Dr. R K Agrawal is Professor in the School of Computer & Systems Sciences of Jawaharlal Nehru University, New Delhi. He is presently Dean of School of Engineering and also served as Dean of School of Computer & Systems Sciences between 2015-2017. He holds M.Tech degree in computer science from IIT Delhi and a PhD from University of Delhi. His research topics include data mining, pattern recognition, machine learning and medical imaging. Dr. Agrawal is an author of more than 100 scientific publications in refereed international journals and conferences, most of them on machine learning and medical imaging related. He has served on the Steering Committees, Program Committees and organizing Committees of many international/national conferences.

Invited Talk 1: "Elections & Social Media" by Dr. Ponnurangam Kumaraguru, IIIT Delhi

Abstract: Dr. Kumaraguru is a TEDx and an ACM Distinguished speaker & ACM India Eminent Speaker. PK received his Ph.D. from the School of Computer Science at Carnegie Mellon University (CMU). His Ph.D. thesis work on anti-phishing research at CMU contributed in creating an award-winning startup - Wombat Security Technologies. Wombat was recently acquired for USD 225 Million. In addition to his contributions to academia, PK is on advisory role on various government organizations and a Fortune 500 company. He is also part of various Board of Studies of different academic institutes across the country. He has co-authored research papers in the field of Privacy and Security in Online Social Media, Cyber Security, Computational Social Science, Data Science for Social Good, amongst others. He is passionate about solving societal problems using technologies, especially contributing to the domain of social computing. PK and his students have played an integral role in developing a technology used by over 80+ State and Central Government agencies in India. He has spent time making notable contributions at organizations like IBM India Research Labs, Adobe Research Labs India, Universidade Federal de Minas Gerais (UFMG) Brazil, and Max Planck Institute for Software Systems Germany. PK has served as a Program Committee member at prestigious conferences like WWW, CHI, PETs, ICWSM, CSCW, AsiaCCS. He was the Founding Head of Cybersecurity Education and Research Centre (CERC) at IIIT-Delhi. PK started and successfully manages PreCog (precog.iiitd.edu.in), a research group at IIIT-Delhi.

Invited talk – 2: "Turning Sensing Data into Smart Data for Smart Sustainable Cities" by Dr. Koji ZETTSU, Director General of Big Data Integration Research Center National Institute of Information and Communications Technology, Tokyo, Japan

Abstract: With recent advances in the Internet of Things (IoT), a wide variety of sensing data are disseminated, shared and utilized in smart cities to improve their efficiency and quality of life of citizens. The key is to turn sensing data into actionable information called "smart data", used for planning, monitoring, navigation and intelligent decision making. In order to manipulate smart data, advanced data analytics is indispensable for detecting valuable events from sensing data and discovering and predicting latent associations among different kind of events. Their optimization in collaboration between a variety of observation data and application-specific data collected from users is also a crucial. In NICT Real World Information Analytics Project, an ICT platform called xData (cross-data) platform is constructed for developing smart applications with harnessing the above technologies toward realization of smart sustainable cities. For example, association discovery from a variety of meteorological and traffic data is performed to create and distribute a map that predicts various transport disturbance risks due to heavy rain, heavy snow and other abnormal weather conditions and to navigate safe, risk-free routes. The purpose of this talk is to introduce and discuss the latest challenges of novel methods and practices on smart data analytics and utilization.

Dr. Koji ZETTSU is a is a Director General of Big Data Integration Research Center of National Institute of Information and Communications Technology (NICT). He has been doing research and development of data analytics technology in NICT, and now leading Real Space Information Analytics Project since 2016 to implement smart data platform based on data mining and AI. For promoting industry-academia-government collaboration on the platform, he is also a leader of Cross-Data Collaboration Project of Smart IoT Acceleration Forum in Japan. Mr. Zettsu received Ph.D. in Informatics from Kyoto University in 2005. His research interests are databases, data mining, information retrieval and software engineering. He has serviced on numerous academic societies, conference committees and working groups.

Invited talk – 3: "Interactive Web-Based Geospatial Big-Data Analytics for Vegetation Monitoring" by Shashikant Sharma, Space Applications Centre, ISRO

Abstract: Monitoring of vegetation health has important applications in the areas of agriculture, climate change and biodiversity conservation. Satellite imagery plays a crucial role in monitoring vegetation health and assessment of physical conditions that may impact the health of vegetation. Ever increasing availability of datasets with high temporal and spatial resolution and ever-growing size of historical long-term datasets presents an opportunity for deriving critical insights for improving agricultural productivity, planning targeted biodiversity conservation programs and accurately assessing climate change impact. However, handling and analysing such huge volume and variety of data is challenging and requires specialized expertise and hardware/software infrastructure. In this paper, we present an interactive analysis system which is delivered as a web-application, for interactively analysing large multi-temporal datasets for vegetation monitoring applications. This system is openly accessible and requires only a web-browser on the part of the user. We discuss key aspects for backend design and implementation that enable very low latency interactive processing and present several useful applications of the system.

Shashikant Sharma is a Scientist-SG and Group Head, VRG/EPSA at Space Application Center (ISRO). He has thirty years of Research and Development experience in the field of Satellite data processing and GIS and its application in mapping and management of natural resources. He has published 40 scientific papers in various national & international Journals. He was awarded bronze Prize for CATCON award at XXth ISPRS congress held in July 2004 at Istanbul, Turkey and he was awarded 'Vikram Sarabhai Award in Information Technology 2001-02' by Department of Science and Technology, Government of Gujarat.

SPONSORSHIP ORDER FORM

Sponsorship Level:

☐ **Platinum Sponsor**
Fee: **Rs. 2.00 lakhs**

☐ **Gold Sponsor**
Rs. 1.00 lakh

☐ **Silver Sponsor**
Rs. 50,000

☐ **Banquet Dinner**
Fee: **Rs. 1.00 lakh**

☐ **Delegate bags**
Rs. 1.00 lakh

☐ **T-Shirts**
Rs. 50,000

Any Other _____

Company/Organization Information

Company/Organization _____

GST Number (Optional) _____

Mailing Address _____

City _____ State _____ PIN Code _____

Phone _____ Web _____

Contact Information

Name _____ Phone _____

Email _____

Mailing Address (If different from above) _____

City _____ State _____ PIN Code _____

Payment Information
Cheque or DD to be issued in the favor of "Ahmedabad University" payable at Ahmedabad.

For NEFT, RTGS & bank transfer below are the details.
Name of Account: **AHMEDABAD UNIVERSITY**
Name of Bank: ICICI Bank Ltd
SB A/C No: 136701000192
RTGS/NEFT/IFSC Code: ICIC0001367
SWIFT Code: ICICINBBNRI
Bank Branch: C G Road Branch
Bank Address: Near Swastik Cross Road, Navrangpura, Ahmedabad 380 009
GST Number: **24AAAJT2294D1Z8**

Contact:
George Varughese
BDA2019 Secretariat,
Admin Office, School of Engineering and Applied Science,
Ahmedabad University,
GICT Building, Central Campus, Navrangpura,
Ahmedabad 380009, Gujarat, INDIA.
Phone: (O) +91 79 61911109, (M) +91 9727619445