Highlights of the School for the academic year 2015-16

1. School among the most-productive organizations involved in Artificial Intelligence Research in India

   The University of Hyderabad (UoH) is among the most-productive organizations involved in Artificial Intelligence research in India. The study has been published in Science & Technology Libraries Journal, United Kingdom. http://www.tandfonline.com/loi/wstl20 (ISSN: 0194-262X (Print) 1541-1109 (Online) Journal).With a citation per paper of 5.36 against the average of 4.68, UoH was among the top ten. It has been ranked 7th among 160 organizations, as most-productive organization involved in Artificial Intelligence research in India. The top twenty most-productive organizations involved in artificial intelligence research in India published 53 or more papers each and contributed 2,219 papers, a 33.99% share in the cumulative publications output in artificial intelligence research from 1968 to 2014. The average citation per paper achieved by the total papers of these twenty organizations was 4.68, and eight organizations achieved a higher average citation per paper ratio than the group average. These institutions include Indian Institute of Technology, Madras (10.21); Indian Statistical Institute, Kolkata (9.97); Indian Institute of Technology (IIT), Bombay (8.44); Indian Institute of Technology, Roorkee (7.36); Indian Institute of Technology, Delhi (6.38); International Business Machines (5.84); University of Hyderabad (5.36); and PSG College of Technology (4.84).

   Dr. Alok Singh, Associate Professor in the School of Computer and Information Sciences at UoH has been ranked 12th among the top 15 most-productive researchers in Artificial Intelligence research, in India.

   The present study analyzes the research output of India in the field of artificial intelligence using scientometric analysis techniques. The data were collected manually using the Scopus database at the end of July 2015. Publications in the field of artificial intelligence research in India from 1968 to 2014 were retrieved. It was found that a total of 6,529 papers were published in the field of artificial intelligence in India during that time period. The research output has grown considerably since 2004, and the last 2 years have witnessed a large publications output from the field.

2. IDRBT instituted PhD Fellowships: The maximum number of IDRBT PhD Fellowships in a year to be offered by IDRBT shall be four (maybe revised from time to time). The period of IDRBT PhD Fellowship will be for 5 years. Currently, the Fellowship will carry monthly stipend of Rs 25,000 (for 1st and 2nd year) and Rs 28,000 (for 3rd, 4th and 5th year), subject to revision from time to time, besides other benefits.

3. GIAN Course

School of Computer and Information Sciences inaugurated on August 2, 2016, a course titled "Design of Algorithms for Big Data Analytics" sponsored by MHRD under a scheme on Global Initiative on Academic Network (GIAN). The course was inaugurated by Honourable Pro-Vice Chancellor Prof. Vipin Srivastava. Other dignitaries were Guest and Course Instructor Prof. Raj K. Bhatnagar, a Professor at University of Cincinnati, USA; Local GIAN coordinator Prof. Nirmal Viswanathan; Course Coordinator Prof. Arun Agarwal and Course Co-coordinator Prof. Rajeev Wankar. There are 50 participants (maximum allowed) who have registered for the GIAN course. Some of them are from various parts of the country like: Andhra Pradesh, Bihar, Jharkhand, Karnataka, New Delhi, Tamil Nadu, Telangana, West Bengal etc.

The term Big Data has become pervasive recently and denotes all the problems encountering in the storage, management, and analysis of the massive amounts of data. Businesses, Sciences, and Engineering are all becoming dependent on their ability to harness useful knowledge from these very large datasets. Computer hardware technologies have enabled very fast processors but the needs of processing Big Data surpass the capabilities of individual processors. Cloud computing technologies that enable thousands of processors to work in parallel to process huge datasets have emerged in last few years and are being adopted successfully by various users. However, there is a need to develop dedicated algorithms for various types of data processing needs in various scientific, engineering, and business domains. The topic of efficient algorithm design for Big Data environments is of extensive research for the last few years. The proposed course seeks to teach participants the various aspects of analyzing the huge datasets using the cloud infrastructure.

4. Editorships
   a. "Dr. Alok Singh, Associate Professor in our School has been appointed as a member of the editorial board of *Applied Soft Computing* which is a well known international journal in the field of soft computing. The journal is published by Elsevier and has current impact factor of 2.86. This is his second editorial responsibility. He is already an Associate Editor of another Elsevier Journal *Swarm and Evolutionary Computation*."
   b. Prof. Arun Agarwal appointed as Associate Editor of CSI Transactions on ICT and Editor of its Special Issue on Cloud Computing for Scientific and Business Needs.

5. Awards and Fellowships
   a. Prof. C R Rao,
       i. Elected, Fellow of Andhra Pradesh Akademi of Science
       ii. Elected Senior Member of International Rough Set Society (IRSS)
   b. Prof. A. Agarwal,
       i. Awarded Outstanding Reviewer Status for Journal of Pattern Recognition, Elsevier, November 2015
       ii. Elected, Founding Fellow, Telangana Academy of Sciences

6. Consultancy
    a. Prof. Arun Agarwal, Prof. C R Rao, Prof Rajeev Wankar and Dr Salman A. Moiz: Modeling and Simulation of scene of offence Crime Nos. 42 & 43/2015 for Special Investigation Team. [2 months; 4.0 Lakhs].

7. Visiting Professor
    a. Dr.Rajkumar Buyya, Professor, Director of the Cloud Computing and Distributed Systems (Clouds) Laboratory, Melbourne School of Engineering, Computing and Information Sciences, University of Melbourne, Australia.

8. Prof. Atul Negi, Chair of IEEE Hyderabad Section Chapter of Computational Intelligence Society. (2015-2016 Jan).

9. Membership in National Level Committees:
    a. Prof. K N Murthy
        i. Member, Working Group on Technology Development in Indian Languages (TDIL), Programme, Ministry of Communications and Information Technology, Government of India
        ii. Member, National Advisory Committee (Technology), Bharatavani Project, Ministry of HRD, Govt. of India

10. Keynotes
    a. Mr. Wilson Naik. B,
        i. Key Note Speaker & Session Chair: International Conference in Computing and Communication (ICICC 2015) 12,13 Feb-2015 at BVRIT, Narsapur,Medak.
    b. Dr. Salman A. Moiz
        i. Keynote on "Uncertainty in Software reuse" in International Conference on Innovations and Advancements in Computing (ICIAC-2016), 18-19 March, 2016
        ii. Key note on "Trends in Middleware Technologies" in IEEE workshop on "Parallel & Distributed Computing" during 18-20 January 2016 at MVSR Engineering College, Hyderabad

11. Visits Abroad
    a. Alok Singh Visited LERIA Laboratory, University of Angers, Angers, France from June 1, 2016 to June 23, 2016 as an Invited Professor

12. School accorded approval as AICTE Minor QIP Centre (also under Any other Item) with intake of (2 + 2) PhD in CS and IS respectively.

13. School sanctioned 136 Lakhs under DST PURSE –II grants and 70 Lakhs under XII Plan for equipment grant

14. School sanctioned total funds of Rs 5.0 crores for building extension (which includes quality furniture for the extension to the building's built up area)

15. In project funded by DRDO [to ACRHEM] under FAE research, a team of faculty members (Prof. C R Rao, Prof. Arun Agarwal and Prof. Rajeev Wankar) Modelled and Simulated the FAE phenomenon which correlated very well with the actual field trial data. An appreciation letter was received from HEMRL, Pune, recently. [Received appreciation letter, 2015].

16. Login'16 is a national level technical symposium organized by Computer Applications Association and Computational Sciences Association of PSG College of Technology, Coimbatore, held during September 24rd-25th, 2016. LOGIN, has proved its excellence every year with innovation and proactive tapping of fresh young minds since 1990.A team of Ten Students of MCA II Year from School of Computer & Information Sciences participated in LOGIN'16. There were over 150 students participating in these competitions from eight Institutions/Universities including teams from NIT Tiruchurapally, Coimbatore Institute of Technology and others. **University of Hyderabad team achieved the Overall Winners position** as they won first position in seven events and second position in one event. In addition to the on-site events, there were many online events conducted as well, which were open for participation to all students. For some of the online events like Hack Arena & Dark Knight, there were participants from foreign universities. A student from University of Texas, secured second position in Hack Arena, in which the first position is held by University of Hyderabad.

17. Received Financial Sponsorship for a MCA student by "With You For You" Foundation. Highlights are:
    a. Financial Sponsorship will cover all the fees, excluding Boarding and Lodging.
    b. Financial support will be on Merit cum Means basis.

18. Memorandum of Understanding between University of Hyderabad and Mobile Digi Converse Pvt. Ltd., Hyd. has been approved by the MoU Committee and signed by competent authorities. The UoH and Mobile Digi Converse Pvt. Ltd. have agreed to work in collaboration to bring in Academy and Industry Collaboration.

19. Dr. P.S.V.S Sai Prasad, Assistant Professor, received the "Best Ph.D. Thesis" award organized by Indian Society for Rough Sets on the eve of Rough set day celebrations (10th November, 2015) at 1st International Conference on Rough Sets and Knowledge Technologies 2014 (ICRSKT 2014), JNTU, Hyderabad, during 9-11, Nov 2015. The scholars who obtained their Ph.D. from any Indian University or Institute on Rough Sets Theory/Applications of Rough Sets participated in this contest. He also received a cash prize of Rs. 10000/-. He received award from Prof. Pawan Lingras, Saint Mary's University, Canada.

20. Seminars conducted
   a. Seminar on " Docker Technology ", Srinivas Jandhyala, Srinivas Nv Gannavarapu, IBM, India Software Lab, Hyderabad, India. On 06 NOV, 2015 at 4.00 P.M, Venue :C.V.Raman Auditorium.
   b. Seminar on "P = NP Problem ", Prof. Malay Ananda Dutta, Department of Computer Science & Engineering. Tezpur University, Assam, On 10 March, 2016 at 2.30 P.M, Venue :Seminar Room, SCIS
   c. Seminar on "Establishing Equivalence between Two Document Images without OCR", Prof. P. Nagabhushan, Department of Computer Science & Engineering, University of Mysore, On 12 March, 2016 at 12:00 P.M, Venue :Seminar Room, SCIS
   d. Seminar on "Clouds & Big Data", Raghavendra Kune, ADRIN (Advanced Data Processing Research Institute), On 18 March, 2016 at 09:30 A.M, Venue :AILab, SCIS.
   e. Seminar on "Charge Scheduling of Electric Vehicles in SmartGrid", Prof. Arobinda Gupta, Department of CSE, IIT Kharagpur, On 02 April, 2016 at 12:00 P.M, Venue :Seminar Room, SCIS
   f. Seminar on "Introduction to NoSQL", Prof. N Parimala, School of Computer & Systems Sciences, Jawharlal Nehru University, Delhi, On 09 April, 2016 at 2:00 P.M , Venue :Seminar Room, SCIS
   g. Seminar on "Cost-Efficient Deployment of Big Data Applications in Cloud Computing", Prof. Rajkumar Buyya, Director, Cloud Computing and Distributed Systems (CLOUDS) Lab, The University of Melbourne, Australia. On 29 April, 2016 at 11:00 A.M, Venue :Seminar Room, SCIS

21. Current Sponsored Projects
   a. Indo-EU Project.
   b. FAE [HEMRL, DRDO]
   c. Mobile and Sensor Network Based Disaster Management System with emphasis on Rescue Management. [IBM]
   d. A New Framework for Analysis, Generation and Translation in Indian Languages (Kannada and Telugu), [MCIT,DeiTy]
   e. Development of Effective Wireless Sensor Network System for Water Quality and Quantity Monitoring (Aquasense), [ITRA]
   f. Implementation of Rainbow table attackt on A5/1 algorithm. [DLRL]
   g. Analysis of Algorithms for decoding A5/1 and A5/2. [DLRL]
   h. An Investigation into the capabilities of artificial bee colony algorithm for discrete optimization. [DST]
   i. Swarm Intelligence based Schemes for resource allocation and data routing in Cognitive Radio. [DST]
   j. Prototype development of WSN based Adaptive Water Quality Monitoring System (Aquamon), [DST]
   k. Distributed Software Engineering, Indo-Trento Project. [DST]
   l. Development of Robust Document analysis and recognition system for printed Indian Scripts, [MCIT,DIT]
   m. Investigation on Model Based Intrusion detection approach for providing secured assess to University computing resources. [UGC]

22. Winner of overall trophy of 'VERSION' 2016 scheduled on 20th & 21st August 2016. VERSION'16 is an All India MCA meet, conducted by the Department of Computer Applications, National Institute of Technology, Tiruchirappalli. The theme of Version'16 is "WITAURA" - Redefining Intelligence, which emphasizes to make the participants acquainted to the new emerging technology.

23. Books
    a. Editors: Mohanty Hrushikesha, Mohanty, J. R., Balakrishnan, Arunkumar (Eds.) , Trends in Software Testing; Springer; 2016.