



TEQIP II WBUT SPONSORED Seminar on

**MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL
(FORMERLY KNOWN AS WEST BENGAL UNIVERSITY OF TECHNOLOGY) - WBUT**

New Innovations in Cloud Computing for Big Data and Internet-of-Things Applications

**Date : 29th July 2016, Time :: 11.30AM - 1 PM.,
Place :: WBUT Jagadish Chandra Bose Auditorium**

Prof. Rajkumar Buyya, Fellow IEEE

Director, Cloud Computing and Distributed Systems (CLOUDS) Lab, The University of Melbourne, Australia

CEO, Manjrasoft Pvt Ltd, Melbourne, Australia

Free Registration :: Max 60 seats only. Contact :: 9830363215 Last entry :: 10.30 AM

Book your seat by email :: dr.debashis.de@ieee.org

ABSTRACT

COMPUTING IS BEING TRANSFORMED TO A MODEL CONSISTING OF SERVICES THAT ARE COMMODITISED AND DELIVERED IN A MANNER SIMILAR TO UTILITIES SUCH AS WATER, ELECTRICITY, GAS, AND TELEPHONY. IN SUCH A MODEL, USERS ACCESS SERVICES BASED ON THEIR REQUIREMENTS WITHOUT REGARD TO WHERE THE SERVICES ARE HOSTED. SEVERAL COMPUTING PARADIGMS HAVE PROMISED TO DELIVER THIS UTILITY COMPUTING VISION. CLOUD COMPUTING HAS EMERGED AS ONE OF THE BUZZWORDS IN THE IT INDUSTRY AND TURNED THE VISION OF "COMPUTING UTILITIES" INTO A REALITY. SEVERAL IT VENDORS HAVE STARTED OFFERING COMPUTATION, STORAGE, AND APPLICATION HOSTING SERVICES, AND PROVIDE COVERAGE IN SEVERAL CONTINENTS, SUPPORTING SERVICE-LEVEL AGREEMENTS (SLA) BACKED PERFORMANCE AND UPTIME PROMISES FOR THEIR SERVICES. CLOUDS DELIVER INFRASTRUCTURE, PLATFORM, AND SOFTWARE (APPLICATION) AS SERVICES, WHICH ARE MADE AVAILABLE AS SUBSCRIPTION-BASED SERVICES IN A PAY-AS-YOU-GO MODEL TO CONSUMERS. THE PRICE THAT CLOUD SERVICE PROVIDERS CHARGE CAN VARY WITH TIME AND THE QUALITY OF SERVICE (QoS) EXPECTATIONS OF CONSUMERS.

THIS KEYNOTE PRESENTATION WILL COVER (A) 21ST CENTURY VISION OF COMPUTING AND IDENTIFIES VARIOUS IT PARADIGMS PROMISING TO DELIVER THE VISION OF COMPUTING UTILITIES; (B) OPPORTUNITIES AND CHALLENGES FOR UTILITY AND MARKET-ORIENTED CLOUD COMPUTING, (C) INNOVATIVE ARCHITECTURE FOR CREATING MARKET-ORIENTED AND ELASTIC CLOUDS BY HARNESSING VIRTUALISATION TECHNOLOGIES; (D) ANEKA, A CLOUD APPLICATION PLATFORM, AND CLOUDBUS WORKFLOW ENGINE FOR RAPID DEVELOPMENT OF CLOUD/BIG DATA APPLICATIONS AND THEIR DEPLOYMENT ON PRIVATE/PUBLIC CLOUDS WITH RESOURCE PROVISIONING DRIVEN BY SLAs; (E) EXPERIMENTAL RESULTS ON DEPLOYING CLOUD AND BIG DATA/INTERNET-OF-THINGS (IoT) APPLICATIONS IN ENGINEERING, AND HEALTH CARE, ASTRONOMY/ SATELLITE IMAGE PROCESSING ON ELASTIC CLOUDS, AND (F) DIRECTIONS FOR DELIVERING OUR 21ST CENTURY VISION ALONG WITH PATHWAYS FOR FUTURE RESEARCH.



SPEAKER BIO:

DR. RAJKUMAR BUYYA IS A FELLOW OF IEEE, PROFESSOR OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING, FUTURE FELLOW OF THE AUSTRALIAN RESEARCH COUNCIL, AND DIRECTOR OF THE CLOUD COMPUTING AND DISTRIBUTED SYSTEMS (CLOUDS) LABORATORY AT THE UNIVERSITY OF MELBOURNE, AUSTRALIA. HE IS ALSO SERVING AS THE FOUNDING CEO OF MANJRASOFT, A SPIN-OFF COMPANY OF THE UNIVERSITY, COMMERCIALIZING ITS INNOVATIONS IN CLOUD COMPUTING. HE HAS AUTHORED OVER 525 PUBLICATIONS AND SEVEN TEXT BOOKS INCLUDING "MASTERING CLOUD COMPUTING" PUBLISHED BY MCGRAW HILL, CHINA MACHINE PRESS, AND MORGAN KAUFMANN FOR INDIAN, CHINESE AND INTERNATIONAL MARKETS RESPECTIVELY. HE ALSO EDITED SEVERAL BOOKS INCLUDING "CLOUD COMPUTING: PRINCIPLES AND PARADIGMS" (WILEY PRESS, USA, FEB 2011). HE IS ONE OF THE HIGHLY CITED AUTHORS IN COMPUTER SCIENCE AND SOFTWARE ENGINEERING WORLDWIDE (H-INDEX=102, G-INDEX=214, 48900+ CITATIONS). MICROSOFT ACADEMIC SEARCH INDEX RANKED DR. BUYYA AS #1 AUTHOR IN THE WORLD (2005-2016) FOR BOTH FIELD RATING AND CITATIONS EVALUATIONS IN THE AREA OF DISTRIBUTED AND PARALLEL COMPUTING. "A SCIENTOMETRIC ANALYSIS OF CLOUD COMPUTING LITERATURE" BY GERMAN SCIENTISTS RANKED DR. BUYYA AS THE WORLD'S TOP-CITED (#1) AUTHOR AND THE WORLD'S MOST-PRODUCTIVE (#1) AUTHOR IN CLOUD COMPUTING.

SOFTWARE TECHNOLOGIES FOR GRID AND CLOUD COMPUTING DEVELOPED UNDER DR. BUYYA'S LEADERSHIP HAVE GAINED RAPID ACCEPTANCE AND ARE IN USE AT SEVERAL ACADEMIC INSTITUTIONS AND COMMERCIAL ENTERPRISES IN 40 COUNTRIES AROUND THE WORLD. DR. BUYYA HAS LED THE ESTABLISHMENT AND DEVELOPMENT OF KEY COMMUNITY ACTIVITIES, INCLUDING SERVING AS FOUNDATION CHAIR OF THE IEEE TECHNICAL COMMITTEE ON SCALABLE COMPUTING AND FIVE IEEE/ACM CONFERENCES. THESE CONTRIBUTIONS AND INTERNATIONAL RESEARCH LEADERSHIP OF DR. BUYYA ARE RECOGNIZED THROUGH THE AWARD OF "2009 IEEE MEDAL FOR EXCELLENCE IN SCALABLE COMPUTING" FROM THE IEEE COMPUTER SOCIETY TCSC. MANJRASOFT'S ANEKA CLOUD TECHNOLOGY DEVELOPED UNDER HIS LEADERSHIP HAS RECEIVED "2010 FROST & SULLIVAN NEW PRODUCT INNOVATION AWARD". RECENTLY, DR. BUYYA RECEIVED "BHARATH NIRMAN AWARD" AND "MAHATMA GANDHI AWARD" ALONG WITH GOLD MEDALS FOR HIS OUTSTANDING AND EXTRAORDINARY ACHIEVEMENTS IN INFORMATION TECHNOLOGY FIELD AND SERVICES RENDERED TO PROMOTE GREATER FRIENDSHIP AND INDIA-INTERNATIONAL COOPERATION. HE SERVED AS THE FOUNDATION EDITOR-IN-CHIEF OF IEEE TRANSACTIONS ON CLOUD COMPUTING. HE IS CURRENTLY SERVING AS CO-EDITOR-IN-CHIEF OF JOURNAL OF SOFTWARE: PRACTICE AND EXPERIENCE, WHICH WAS ESTABLISHED OVER 45 YEARS AGO. FOR FURTHER INFORMATION ON DR.BUYYA, PLEASE VISIT HIS CYBERHOME:WWW.BUYYA.COM