The Workshop on Design and Implementation of Emerging Computing Systems 2013 (WECS 2013) covers topics from a wide range of computing systems: from mobile computing to cloud management, web technologies to robotics, networked systems to social networks. It also remains open to any contribution in any recent advancement in computing in general. The primary focus of WECS is to provide a forum of researchers, practitioners, developers, and users to exchange new ideas and results related to emerging computing systems across academia, industry and government in Bangladesh. The WECS 2013 will be held in Dhaka, Bangladesh, **September 28-29, 2013**. Dhaka is the capital city of Bangladesh, a beautiful South-Asian country. The workshop will be held at the Department of Computer Science and Engineering, Bangladesh University of Engineering and Technology. WECS 2013 is organized under the subproject CP#2082: Enhancement of Graduates Studies Facilities for the Department of CSE, BUET of Higher Education Quality Enhancement Project (HEQEP). This workshop features keynote speech, seminar talks, research papers and posters presentations.

Call for Papers

The workshop solicits original and previously unpublished short papers (4-6 pages) on recent advancements in computing systems. It covers topics from a wide range of computing systems: from mobile computing to cloud management, web technologies to robotics, network systems to social networks. The workshop encourages submission of problems with real implementation and experiments with special emphasis on building a working prototype and some form of comparative evaluation. In general, the workshop remains open to any contribution to recent advancements in computing systems.

Topics include, but are not limited to, the following:

- Hot topics in computing: cloud computing, mobile computing, etc.
- Embedded systems, multimedia systems, distributed systems
- Networked systems, wireless and sensor networks
- Experimentation, measurements, user experiences, simulation and analysis of existing computing systems
- Human-centric computation and communication
- Social computing and social networks
- Information technology for emerging/developing regions
- Innovative computer and mobile phone applications

There will be a "Best Paper" award. The winner(s) will be announced and awarded on the final day of the workshop.

Call for Demos

The workshop will host a demo session in order to showcase live demonstrations ("demo"s) in the areas of emerging computing systems. Demos are intended to exhibit live operation of a working system or a small prototype of it. Innovative applications on desktop, web or mobile platforms, system prototypes around devices and interesting hardware projects can be qualified for demos. Other ideas and implementations are also welcome.

We encourage both the academia and the industry to submit demos. Demo submission requires a short description (1-2 pages) highlighting the key aspects of the system, its usage and how the demo will be exhibited, especially if it solicits any interaction from the users or requires any special setup. The title of the submission should be prefixed with "DEMO:". A video of the demo, no longer than 2-minutes, can optionally be included in the submission.

Any device, tool or service (e.g. laptops, mobile phones, internet connection, etc.) needed to perform the demo should be brought and setup by the participants. The workshop venue will provide a table space and standard AC power.

There will be a "Best Demo" award. The winner(s) will be announced and awarded on the final day of the workshop.

Important Dates

For Paper Submission

Submission Deadline: September 7, 2013 (11:59 pm Bangladesh Standard Time (GMT+6.00))

Notification of acceptance: September 17, 2013

Camera Ready Date: September 20, 2013

For Demo Submission

Submission Deadline: September 15, 2013 (11:59 pm Bangladesh Standard Time (GMT+6.00))

Notification of acceptance: September 20, 2013

Workshop

September 28-29, 2013

Invited Talk Abstracts

"You're hired! When emotion meets behavioral health" by **Dr. M. Ehsan Hoque**

So you think someone is happy because s/he is smiling? In our research, we demonstrate that most people are unable to differentiate the smiles elicited under frustrated and delighted stimuli. What makes it so difficult? Through a series of studies, I have demonstrated that we could build algorithms that can automatically predict the underlying meaning behind smiles, in some cases, better than humans.

Along with nonverbal behavior understanding, can we design technology that could have direct impact on people and their lives? For my PhD dissertation, I have built a system, MACH-My Automated Conversation coacH, for people to practice their social interactions in face to face scenarios. MACH consists of a 3D character that can "see", "hear" and make its own "decisions" in real time. 90 MIT undergraduate students interacted with MACH for 3 months in the context of job

interviews. Students who interacted with MACH demonstrated significant performance improvement compared to the students in the control group. Empirical data from this effort could open up new possibilities in behavioral health (e.g., treating people with asperger syndrome, social phobia, PTSD) as well as designing new interaction paradigms in human-computer interaction and robotics.

Committee

Advisory Committee:

- **Dr. M. Kaykobad**, Professor, Department of CSE, BUET
- **Dr. Abu Sayed Md**. **Latiful Hoque**, Professor, Department of CSE, BUET
- **Dr. Md. Saidur Rahman**, Professor, Department of CSE, BUET
- **Dr. Mohammad Mahfuzul Islam**, Professor, Department of CSE, BUET

Program Committee:

- **Dr. Md Mostofa Akbar**, Professor, Department of CSE, BUET
- **Dr. A.K.M. Ashikur Rahman**, Associate Professor, Department of CSE, BUET
- **Dr. Mohammed Eunus Ali**, Associate Professor, Department of CSE, BUET
- **Dr. Md. Shohrab Hossain**, Assistant Professor, Department of CSE, BUET
- **Dr. A. B. M. Alim Al Islam**, Assistant Professor, Department of CSE, BUET
- **Dr. Md. Khalilur Rahman**, Associate Professor, Department of CSE, BRAC University
- **Dr. Rajesh Palit**, Assistant Professor, North South University
- **M. Ehsan Hoque**, Ph.D. candidate, MIT Media Lab; Assistant Professor, University of Rochester
- **Mosharaf Chowdhury**, Ph.D. candidate, AMPLab, UC Berkeley
- **Shahriar Nirjon**, Ph.D. candidate, University of Virginia
- **Ahmed Khurshid**, Ph.D. student, UIUC; Assistant Professor (on leave), Department of CSE, BUET

Organizing Committee:

- **Dr. Md. Yusuf Sarwar Uddin (Chair),** Assistant Professor, Department of CSE, BUET
- **Khaled Mahmud Shahriar**, Assistant Professor, Department of CSE, BUET
- **Dr. A. B. M. Alim Al Islam**, Assistant Professor, Department of CSE, BUET
- **Nashid Shahriar**, Assistant Professor, Department of CSE, BUET
- **Shubhra Kanti Karmaker Santu**, Lecturer, Department of CSE, BUET
- **Ayon Sen**, Lecturer, Department of CSE, BUET
- **Shagufta Mehnaz**, Lecturer, Department of CSE, BUET
- **Muhammad Ali Nayeem**, Lecturer, Department of CSE, BUET
- **Md. Mosiur Rahman Lunar**, Department of CSE, BUET
- **Mohammad Saifur Rahman (Secretary)**, Lecturer, Department of CSE, BUET

Seminar Speakers:

Dr. Mohammed Eunus Ali
Associate Professor
Department of CSE,
BUET

Dr. Ragib Hasan
Assistant Professor
Department of Computer and Information
Sciences
University of Alabama at Birmingham

Dr. M. Ehsan Hoque
Assistant Professor
Computer Science department
University of Rochester, USA.

Dr. Md. Khalilur Rahman
Associate Professor
Department of CSE,
BRAC University

Industry Showcase Partners: