Mohammad Abu Baker Siddique Akhonda

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RESEARCH INTEREST:

Image and Signal Processing, Neural Network & Pattern Recognition, Deep Machine Learning, Affective Computing, Neuroimaging and Neural Interfaces, Wireless sensor network & its Biomedical Applications, Ad hoc networks

EDUCATION:

Bachelor of Electronics and Communication Engineering	**September 2013**
Khulna University of Engineering and Technology (KUET), Khulna, Bangladesh	CGPA 3.74 out of 4.0
	(Last 60 credits: 3.96)

WORK EXPERIENCE:

Software Engineer   **October 2013 - August 2015**
Samsung Research and Development (R&D) Institute (SRBD), Bangladesh
Key R&D projects:
Samsung Access Protocol (SAP):
- Developed SAP, A protocol by which Samsung Host device communicate with its accessory devices.
- Modified the protocol for different host and accessory devices and fixed bug.
- Developed in C.
- Available in Tizen Based devices (Gear).

Vision Test Framework (VTF):
- An image detection based project which can categories gallery images according to different genres (Human, Nature, Animal, Food etc.)
- Key technologies: Image processing, Machine learning, Big Data processing.
- Available in Android devices after Galaxy S5

Idea & Innovation:
- Generated and Developed Ideas for IOT and smart devices. 2 Ideas selected for Commercialization.

RESEARCH EXPERIENCE:

Khulna University of Engineering & Technology, Khulna, Bangladesh
Undergraduate Thesis:
Physiological signal Analysis using ECG, EMG, EEG and Blood Pressure Measurement   **Sep 2012 – August 2013**
Supervision: Professor Dr. Md. Mostafizur Rahman
- Thesis work involved collecting, processing and analyzing physiological signals for affective computing purposes.
- Detection of different human cognitive state by analyzing EEG using neural network.
- Detection of human physical and mental stresses due to overuse of computer by analyzing physiological signals**.**

PROJECT WORK:

Khulna University of Engineering & Technology, Khulna, Bangladesh
Line follower robotic system   **February 2012 - August 2013**
- Designed and constructed a robotic system that can follow a certain color line

Design of a High Gain Micro strip Patch Antenna for WLAN/Bluetooth   **February 2012 - August 2013**
Application at 2450 MHz Frequency
- Designed a micro strip patch antenna using 4nec2 at 2459 MHz frequency and
- Practically implemented the designed antenna using PCB

Noise cancellation in a communication channel by using modified LMS algorithm   **October 2011 - February 2012**

- Implemented modified LMS algorithm by using MATLAB to observe the noise cancellation in a communication channel

PUBLICATIONS & PRESENTATIONS:

Conference (referred):

- M.A.B.S. Akhonda; S.M.F. Islam; A.S. Khan; F. Ahmed; M.M. Rahman, "Stress Detection of Computer user in office like working environment", 17th International Conference on Computer And Information Technology (ICCIT), 22-23 December,2014, Daffodil International University, Bangladesh.
- M.A.B.S. Akhanda; S.M.F. Islam; M.M. Rahman, "Detection of Cognitive State for Brain-Computer Interfaces", 1st International Conference on Electrical Information and Communication Technology (EICT),13-15 February 2014, Khulna University of Engineering and Technology, Khulna, Bangladesh.
- M.A.B.S. Akhanda; S.M.F. Islam; M.M. Rahman, **"**Monitoring the Performance of Computer User by Analyzing Physiological Signals" 16th International Conference on Computer And Information Technology (ICCIT),8-10 March 2014. Khulna University, Khulna, Bangladesh.

Journal:

- M.A.B.S. Akhanda; S.M.F. Islam; I. S. Iqbal, "Design of a High Gain Microstrip Patch Antenna for WLAN/Bluetooth Application at 2450 MHz Frequency*", International Journal of Scientific & Engineering Research, Volume 4, Issue 8, June 2013* ISSN 2229-5518.

PROGRAMING LANGUAGES & SOFTWARE PACKAGES:

Programming Language:	C/C++, JAVA, MATLAB, PYTHON
Application Development:	Android and Tizen
Shell:	Windows Powershell, Dos, UNIX shell scripting
Web Development:	PHP, .NET Framework, Python Django

 Engineering Analytical Tools:
- **Circuit design**: Electronics Workbench, Multisim, PSPICE
- **Networking**: Packet Tracer, Wireshark
- **Antenna Design**: NEC, HFSS
- **Biomedical:** BIOPAC and BIOPAC AcqKnowledge

AWARDS & ACHIVEMENTS:

Samsung Research and Development Institute, Bangladesh   **October 2013 – August 2015**

- **Global Samsung Advance Level Programmer:** Attended at Global Samsung Capability programming contest and recognized as Advance level programmer.
- **IOS Technical committee:** Selected as a member of prestigious IOS committee for outstanding Ideas. 2 Ideas selected for commercialization.

Khulna University of Engineering & Technology, Khulna, Bangladesh   **March 2009- September 2013**

- **Dean's List:** Selected for prestigious Dean's list consecutive 3 years for extraordinary result in undergraduate level.
- **UGC Grant:** Selected for UGC grant for outstanding thesis work and publications.
- **Government Scholarship:** Full scholarship given by government throughout the Undergraduate level due to outstanding result in Higher Secondary Certificate (HSC) exam.

Scholl level:
- **Math Olympiad:** District level Champion

EXTRACURRICULAR ACTIVITIES:

- Organizing secretary of KUET debating society (KDS) for 2010-11, Organized 2nd inter varsity debate competition. Member of inter hall and Inter department debate champion team.
- General Secretary of KUET Electronics Club (Kuetronics) for 2011, Organized 1st intra varsity project show.
- Member of ECE association for 2009, Student representative of student welfare office for 2010, Organized inter Hall cultural festival 2010.
- Member of Inter hall sports champion team.

TEST SCORE:

- Graduate Record Exam (GRE): 309 (Q: 163, V: 146, AWA: 3)
- International English Language Testing System (IELTS): 7

REFERENCE:

Reference 1: Dr. Md. Mostafizur Rahman Professor & Departmental Head Dept. of Electronics and Communication Engineering Khulna University of Engineering & Technology (KUET) Khulna-9203 Mobile no.: 01714-087372 E-mail: mostafiz3963@yahoo.com E-mail: mostafiz963@ece.kuet.ac.bd	Reference 2: Dr. Md. Faruque Hossain Professor Dept. of Electronics and Communication Engineering Khulna University of Engineering & Technology (KUET) Khulna-9203 E-mail: fhossain@mail.kuet.ac.bd