



Name. Dr. Ali Ahmed

Assistant Professor

Contact Information:

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Qualification

- 2012 – 2016, **HANYANG UNIVERSITY, SOUTH KOREA, Masters-Ph.D. integrated in Electronics and Communication Engineering**, HEC Scholar.
- 2011 – 2012, **SEECS NUST, ISLAMABAD, Masters in Computer Communication Security** (course work only)
- 2004 – 2007, **NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY, KARACHI, Bachelor of Electronics Engineering.**

Area of Specialization

- SRAM-based TCAM, Memory Architecture, Content Addressable Memory, Ternary Content Addressable Memory.
- FPGA, Microcontrollers, Product Development
- Information Security

Work Experience

- Sep 2012 – Dec 2016, **Research Assistant** and Ph.D. fellow at **Reliable and high Speed Computing laboratory (RSC)**, Hanyang University, ERICA Campus, Ansan, South Korea.
- May 2008 – Aug 2012, **Horizon Technologies, Hardware Design Engineer**, Islamabad, Pakistan.
- Feb 2008 – May 2008, **Ibn –e- Khuldoon Systems, Assistant Manager (Embedded Systems)** Karachi, Pakistan.

Membership & Affiliation

- PEC (ELECTRO/8972)
- IEICE (1683381)
- Reviewer of IEEE Transaction of Circuits and Systems.

Research Interests

- FPGA-based Embedded Systems
- IoT, CoTs Hardware (Product Development)
- Memory-based Computing.

Publications and Patents

- A. Ahmed; K. Park; S. Baeg, "Resource-Efficient SRAM-based Ternary Content Addressable Memory," in IEEE Transactions on Very Large Scale Integration (VLSI) Systems , vol. PP, no. 99, pp. 1-5, doi: 10.1109/TVLSI.2016.2636294.
- "Algorithm for increasing emulated TCAM bits in constructing SRAM-based TCAM", Application No. PCT/KR2016/010215, 2016. (PATENT PENDING)
- "Apparatus and method for emulating typical match lines and comparison cells architecture in CAM by using programmable logic function synthesis on RAM hardware", KOREA, APPLICATION No. 10-2016-0030826, 2016 (PATENT PENDING)