

# SYED BABAR ALI SCHOOL OF SCIENCE AND ENGINEERING



## PROF. SHAHID MASUD, DEAN SBASSE

Dear Readers,

I am delighted to share exciting new developments and progress of the SBASSE through this inaugural issue of the newsletter. While there were plenty of activities being taken place at various levels in SBASSE, it was felt that the information was scattered and was not reaching our patrons, stake holders and well-wishers in a concise and timely manner. This newsletter is aimed at bridging this communication gap. I urge you to go through this publication and provide your valuable feedback to further improve its style, contents and any other aspect. Please feel free to write to me directly at [smasud@lums.edu.pk](mailto:smasud@lums.edu.pk). Happy reading!



## LUMS SBASSE ADVISOR'S WORK HIGHLIGHTED IN THE WALL STREET JOURNAL

JANUARY 28, 2017

Muhammad H. Zaman, a member of the SBASSE Board of Advisors and a Professor Howard Hughes Medical Institute, Department of Biomedical Engineering and International Health, Boston University has invented a device, PharmaChk, which detects fake medicines. His device, recently featured in the Wall Street Journal was named one of Scientific American's "world-changing ideas" of 2013. It relies on advances in the field of microfluidics to check if medicines are authentic.



## PROF. ASAD ABIDI NAMED THE INAUGURAL HOLDER OF THE ABDUS SALAM CHAIR AT LUMS

JANUARY 10, 2017



Prof. Asad A. Abidi, Distinguished Chancellor's

Professor of Electrical Engineering at the University of California, Los Angeles (UCLA) will be the inaugural holder of the Abdus Salam Chair at the SBASSE, LUMS. An inspiring teacher in the area of sciences and engineering, Prof. Abidi is famous for his ground breaking developments in single-chip radios. The Electronic devices and circuits attributed to his research form the basis of many of the today's mobile devices.

## HIGHLIGHTS

- Dean's Honor List Ceremony
- Lahore Science Mela
- PSIFI VIII
- Career Information Session
- LUMS Annual Career Fair 2017
- Faculty Research
- Faculty News
- Student's Achievements
- CASM Workshop on Mathematics of Finance
- IEEE Advanced Embedded System Workshop
- WIT Symposium on the History and Future of Indus Basin
- 17<sup>th</sup> Advisory Board Meeting

**DEAN'S HONOR LIST CEREMONY**

FEBRUARY 10, 2017

The LUMS Dean's Honor List Ceremony was held on February 10, 2017 at SBASSE. Students who performed well during their academic year were acknowledged and awarded certificates. Apart from the Dean's Honor List awards, recipients of merit scholarship were also acknowledged during the ceremony. The event was organized by Academic Affairs' Office in coordination with OSA. Dr. Syed Sohail Hussain Naqvi (VC) and Dr. Shahid Masud awarded the Certificates to the successful students.



**ADVISEMENT SESSIONS**

The purpose of SBASSE academic advising is to assist students in their growth and development by constructing meaningful educational plans which are compatible with their life goals. It is a continuous and consistent process which is built upon the basis of frequent personal contacts between advisor (Faculty Member) and advisee.



**LAHORE SCIENCE MELA**

JANUARY 28-29, 2017

Department of Physics organized the **Lahore Science Mela 2017**. The festival was hosted at the Ali Institute of Education, Lahore. The purpose of this event was not to teach but to have fun with hands-on activities, aimed at all age groups, that create a sense of inquiry and passion.

**PSIFI VIII**

JANUARY 11-14, 2017

**MAJOR DAY/CAREER INFORMATION SESSION**

The Major Day/Career Information Session is held each year in the mid of Spring semester. Selecting a major among six streams i.e. Biology, Chemistry, Computer Science, Electrical Engineering, Mathematics and Physics may not be that straightforward for many students. Although students frequently discuss career options with the SBASSE faculty, we feel that engaging their parents in this important discussion is also paramount.



**LUMS ANNUAL CAREER FAIR**

FEBRUARY 04, 2017



The Leading companies from various sectors like FMCG, Engineering, Education, Financial Institutions, IT & Telecom, and Development from all over Pakistan participated in LUMS Annual Career Fair 2017. It is a great opportunity for the graduates of LUMS, and for those who are yet to graduate, to interact with the representatives of leading companies of multiple sectors and expand their networks to explore opportunities, and acquire information about the hiring processes.

With the mission to continue its endeavors towards becoming a leading student-run organization for the development of science on a country-wide scale, SPADES (Society for Promotion And Development of Engineering and Sciences) held PSIFI VIII, the eighth nationwide Science symposium that was first launched in March 2010. Academic events are the backbone of PSIFI, they comprise of 15 different competitions testing the participants' knowledge, skill and creative thinking in various fields of Science and Engineering.

**Ph.D. DISSERTATION DEFENSE OF MUBASHER BAIG: DECEMBER 28, 2016**

Ph.D. Dissertation Defense of Computer Science student, Mubasher Baig was held at SBASSE. The thesis title is "Boosting Based Multiclass Ensembles and Their Application in Machine Learning." Congratulation to the student and his advisor Dr. Mian Awais.

PHYSICS FACULTY ADDRESS AT PRIME MINISTER HOUSE

JANUARY 28, 2017

Dr. Muhammad Sabieh Anwar, faculty of Physics department, addressed the inauguration ceremony of Volume 1 of the Maths and Science Report: How Maths and Science power nations, organized by the Pakistan's Maths and Science Alliance at the Prime Minister House.



LUMS SYSNET LAB RECOGNISED BY ICTRDF

JANUARY 27, 2017



The latest issue of the National ICT R&D Fund (ICTRDF) newsletter has declared the SysNet lab at the LUMS Computer Science department among the few, best Internet of Things (IoT) initiatives launched in the country. The lab directed by Dr. M. Hamad Alizai, hosts both graduate and undergraduate students from the Computer Science and Electrical Engineering departments to solve some of the most challenging problems in the field of IoT. A diverse set of national and international donors fund the lab such as German DAAD, Higher Education Commission (HEC), and ICTRDF.



ADVANCED COMMUNICATIONS LAB (ADCOM): PROGRESS THROUGH THE YEARS

Eighty-six research publications, PKR 57 Million in research grants, 3 international patents, 29 graduate students, 41 undergraduate projects and independent studies, 50 research assistants – this is the progress of the Advanced Communications Lab (Adcom lab) at LUMS. The lab is being managed by Dr. Naveed Ul Hassan, Dr. Momin Uppal and Dr. Ijaz Haider Naqvi, Assistant Professors of Electrical Engineering at the Syed Babar Ali School of Science and Engineering (SBASSE), LUMS. The lab directors strive for cutting-edge, high impact research and excellence in teaching. Adcom lab believes in providing research opportunities to undergraduate students through internships, student projects and independent studies. These overtures often result in research publications and the placement of our students in top class international MS and PhD degree programmes. Over the years, several lab affiliates have earned Fulbright scholarships, and graduate placements at prestigious universities, such as, University of Texas at Austin, Rutgers University, McGill University, HKUST, Hong Kong, Technical University of Munich, etc.



Physics faculty, Dr. Babar Qureshi's work titled, "ADM Energy and Infragravitons" has been published in Physics Letters B. Physics Letters B is one of the top journals in high energy physics, nuclear physics and cosmology with an A\* ranking according to Australian Research Council.

MARCH 02, 2017

FACULTY NEWS

- Professor Arif Zaman, Computer Science department, has reached retirement age. A ceremony was held on 25 January 2017 to honor his long and meritorious services to LUMS. He will remain associated with the department to develop and teach courses in emerging discipline of Data Sciences; an area that is close to his heart.
- Dr. Ata ul Haq has joined as Assistant Professor (Tenure Track) in Physics department.
- Dr. Ammar Ahmed, our alumnus from 2012 batch, has joined as Visiting faculty in Physics department. He has completed his PhD from University of Cambridge.
- Dr. Mudassar Razaq has joined as Assistant Professor (Tenure Track) in Mathematics department.

INAUGURATION OF A NEW COMPUTER LAB

FEBRUARY 03, 2017



A new computer lab, inaugurated by Dr. Sally Benson, has become operational at SBASSE basement. This lab was partially funded by Techlogix, ArbiSoft and 7Vals and has a capacity of 60 workstations.

**ABDUS SALAM MEMORIAL LECTURE BY PROF. M. DUFF**

FEBRUARY 02, 2017



The lecture included reminiscences by a former graduate student of

the life and times of Abdus Salam at Imperial College London. Professor Duff gained his PhD in theoretical physics in 1972 at Imperial College under the mentorship of Prof. Salam. Prof. Duff's interests lie in unified theories of elementary particles, quantum gravity, supergravity, the Kaluza-Klein theory, superstrings, super membranes, M-theory and quantum information theory.

**WIT SYMPOSIUM ON THE HISTORY AND FUTURE OF INDUS BASIN**

JANUARY 29, 2017

Centre for Water Informatics and Technology, Lahore University of Management Sciences (WIT-LUMS) hosted International Symposium on "History and Future of Indus Basin" - Connecting Water to Culture, Economy and Technology.



**17<sup>TH</sup> ADVISORY BOARD MEETING**

FEBRUARY 01-04, 2017

Syed Babar Ali School of Science and Engineering hosted the 17<sup>th</sup> Advisory Board Meeting from February 1<sup>st</sup> to 4<sup>th</sup>, 2017. The following honorable members: Dr. Sally Benson, Dr. James Wescoat, Dr. Khalid Aziz, Dr. Michael Pecht, Dr. Hassan Ahmed and Dr. George Mitchel Homsy visited SBASSE. Advisory Board provides strategic advice to the management of SBASSE on its policies, programs and other matters.



**CASM WORKSHOP ON MATHEMATICAL FINANCE**

DECEMBER 19-24, 2016

Centre for Advanced Studies in Mathematics has organized the **Mathematical Finance Teaching the Teacher Workshop** for lecturers and professors to offer university level courses in mathematical finance with applications in investment banking. Contents of the workshop were based on University College London curriculum and professional development executive education training programmes in investment banking in London, New York and Singapore.

**IEEE ADVANCED EMBEDDED SYSTEMS WORKSHOP**

DECEMBER 10, 2016

SBASSE recently held a workshop on the Embedded Systems Series at LUMS to bring the industry and academia close to each other in the application of embedded systems in real life scenarios. Highly respected speakers from Mentor Graphics, National Instruments, UET Lahore and LUMS discussed Embedded Board Development, RTOS, Scheduling and the application of Embedded Systems in robotics and wireless communication.

**Ph.D. POSTER PRESENTATION**

FEBRUARY 03, 2017



SBASSE organized poster presentation for MS and Ph.D. scholars to demonstrate their research work. The whole faculty and members of the Advisory Board visited and discussed the research prospects and implications with students.

**EE Ph.D. CANDIDATE RESEARCH**

JANUARY 19, 2017



Talha Manzoor, Ph.D. candidate of Electrical Engineering with his supervisors Dr. Abubakr Muhammad, Associate Professor of electrical engineering at LUMS, and Dr. Elena Rovenskaya, Programme Director at the International Institute for Applied Systems Analysis (IIASA), Austria, have recently published their research titled "Game-theoretic insights into the role of environmentalism and social-ecological relevance."

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**PHYSICS Ph.D. CANDIDATE RESEARCH GRANT**

MARCH 02, 2017



Saira Ali, a PhD candidate in the department of Physics has been awarded a DAAD grant to conduct research at the University of Heidelberg. The award will allow her to spend six months at Heidelberg to work on a collaborative research project. She will be joining the research group led by Prof. Bjorn Schafer.