CREATING A BETTER WORLD WITH LUMS SBASSE

Syed Babar Ali School of Science and Engineering (SBASSE) imparts top-quality education in Science and Engineering with a vision to carry-out world-class, multidisciplinary education and research.

The MS Programmes at SBASSE are rigorous and designed to impart specialised professional and research oriented training to students. To graduate, students must complete a total of 30 credit hours either entirely from coursework, or by collecting 24 credit hours from coursework and the rest from a thesis. Hence, all SBASSE departments offer two options to choose from: MS-by-Coursework or MS-by-Thesis.

The SBASSE PhD Programmes prepare students to think scientifically and conduct high-quality research independently. To graduate, students must earn a total of 42 credit hours from which 18 must be from coursework and 24 from research work or a thesis. Major milestones that must be achieved for the successful completion of the PhD degree include the Comprehensive (Qualifying) Examination, Thesis Proposal Defense, Research Publication(s) and PhD Thesis Defense.

During the course of study, students learn through lectures, tutorials, laboratory work, problem-solving exercises, research projects and frequent interaction with experienced faculty members and advisors.

"I joined SBASSE in late 2011 and since then I have had a wonderful experience. I have been very fortunate to have worked with outstanding students and colleagues on exciting research problems and have thoroughly enjoyed teaching here. The CS Department is one of the oldest Departments at LUMS. Our students receive academic training under the mentorship of excellent faculty members, who have made substantial impact in their respective fields. In our Department, we intensively focus on the development of analytical and critical thinking skills of our students. The work environment and the facilities in the CS Department are absolutely world-class. Our students have had placements at top graduate programmes of the world including MIT, Stanford University, UC Berkeley, and Carnegie Mellon University, they have been placed in leading companies including Google, Facebook, Amazon, Apple and Microsoft, and have also been able to work on successful startups e.g. PakWheels. Our faculty has consistently published in top research conferences and journals in their fields, established international collaborations with both academia (e.g. UC Berkeley, UIUC, MIT and Brown University) and industry (e.g. Google and Facebook), and are making great impact both locally and internationally through their work."

Dr. Ihsan Ayyub Qazi
Associate Professor and Chair,
Department of Computer Science
Collaborations with National and International Educational Institutions

- Institute of Electronics and Telecommunication of Rennes (IETR) Research Laboratory, Rennes France
- Singapore University of Technology and Design (SUTD), Singapore
- Supelec, France
- Texas A&M University, Qatar
- CoNNekT Lab, NUT School of Electrical Engineering and Computer Science (SEECS)

Interdisciplinary Programmes

The rigorous curriculum of the Graduate Programmes at SBASSE provides a multidisciplinary learning environment. Students get the opportunity to work with knowledge drawn from all 6 disciplines as a part of the free elective requirement.

Global Exposure through International Exchange Programmes

MS and PhD Programme students participate in various exchange programmes and research opportunities sponsored by National ICT R&D Fund, HEC, Commonwealth, Erasmus-Mundus and DAAD etc.

Financial Support

From scholarships, loans, work options and partial tuition fee waivers for MS students to full funding and research grants for PhDs, the School offers substantial support to promote the study of Science and Engineering disciplines.

Top-Quality Publications

Research by graduate students has been published in top-quality journals
HOW WILL YOU LAUNCH YOUR NEW WORLD?

The Department of Computer Science will help you stay on top of the growing trends of information and technology. It equips you with first-hand experience of the quality work being done in the areas of Computer Vision, Data Mining, Polymers and Nanocomposites, Networks, Information Security, Privacy and Distributed Systems, Software Engineering, Human Computer Interaction, Big Data, Artificial Intelligence and Robotics.

As an integral element of graduate education, the Department of Computer Science provides unmatched research possibilities, opportunities and resources. Students are not only encouraged to get involved in rigorous research alongside coursework but are also provided fully equipped clusters, groups and laboratories.

WHAT WILL YOUR NEW WORLD INVENT?

The faculty members at the Department of Computer Science have years of experience exhibited not only through their taught courses and curriculum but also through their rigorous research work and publications in renowned journals.

- **Computer Vision**
  - Dr. Murtaza Taj
  - Dr. Sohaib Ahmed Khan

- **Data Mining**
  - Dr. Asim Karim
  - Dr. Arif Zaman
  - Dr. Yasir Mehmood

- **Polymers and Nanocomposites**
  - Dr. Habib-ur-Rehman

- **Networks, Information Security, Privacy and Distributed Systems**
  - Dr. M. Fareed Zaffer
  - Dr. Ihsan Ayyub Qazi
  - Dr. Basit Shafiq
  - Dr. Zartash Afzal Uzmi

- **Software Engineering**
  - Dr. Hamid Abdul Basit
  - Dr. Naveed Arshad
  - Dr. Junaid Haroon Siddiqui
  - Dr. Shafay Shamail
  - Dr. Suleman Shahid

- **Algorithms and Theory of Computation**
  - Dr. Imdad Ullah Khan
  - Dr. Arif Zaman

- **Artificial Intelligence and Robotics**
  - Dr. Mian Muhammad Awais
  - Dr. Asim Salimul Karim

**Quick Facts**

- The Department of Computer Science has been awarded ‘W’ ranking by the HEC through its national-level body, NCEAC, which aims to assure quality in computing education.

- 100% success rate of admissions to fully funded graduate programmes of the world’s top universities

Muhammad Hamad Alizai  |  Assistant Professor, Department of Computer Science

“The Computer Science Graduate Programmes boast exceptional faculty and great students; together we have made thriving research journeys to many Computer Science sectors including Networks and Systems, Software Engineering, Computer Vision and Data Science. If you have the will, we have the way: an inspiring teaching and research culture for you to fulfil your Computer Science dreams!”
HOW LUMS SBASSE WILL HELP YOU REALISE YOUR AMBITION

Research Facilities

- Computer Vision Laboratory
- Robotics and Intelligent Computing (RICE) Laboratory
- Knowledge and Data Engineering (KADE) Laboratory
- Software Engineering Research Laboratory (SERL)
- Networks and Systems Group (NSG)
- Programme Analysis Group (PAG)
- Technology for People Initiative (TPI)
- Computer Human Interaction and Social Experience Lab (CHISEL)
- Embedded Systems and Networks (SYSNET) Laboratory
- 4G Wireless Research Lab

Computer Science graduates receive offers from leading universities of the world, like Massachusetts Institute of Technology, Stanford University, University of Oxford, University of Cambridge, Harvard University and University of Illinois Urbana-Champaign to pursue higher studies.


Students work alongside faculty members at SBASSE as Teaching Assistants and Research Assistants.

Dr. Ayesha Afzal | PhD Computer Science 2013

“The School provided me with ample resources to conduct high-quality research. Additionally, the exceptional mentorship provided by the faculty advisers helped me achieve my professional goals. Lastly, the supportive cohort of brilliant PhD students made the journey even more rewarding.”
Samar Abbas | PhD Computer Science 2016

“The world-class mentors and their cross domain collaboration enhanced my problem-solving techniques and increased my horizon and scope in research. My research journey continued in the form of a PhD where I am using machine learning along with IOT to solve critical indigenous problems.”
**Admission Process**

Admission is purely merit-based and rests solely on the following criteria:

- Academic record
- Admission Test performance*
- Interview performance

*For admission test details [https://admission.lums.edu.pk/graduate-programmes](https://admission.lums.edu.pk/graduate-programmes)

**Financial Support**

Several funding opportunities are available to deserving MS and PhD students. These include:

- LUMS Interest Free Loan
- Merit Scholarships for MS Programmes
- External Scholarships (if available)*
- 100% Scholarships for PhD students
- Partial tuition fee waivers for all MS students (Basic Sciences and Mathematics)
- HEC Research Grants
- Options to work as Research or Teaching Assistants

*Support and eligibility for these scholarships vary depending on the donor.

For details [https://financial-aid.lums.edu.pk](https://financial-aid.lums.edu.pk)
CRITICAL DATES

Deadline to Apply
April 02, 2019

Deadline to take GRE
April 14, 2019

LUMS Graduate
Admission Test and
SBASSE Subject Test
April 14, 2019

Admission Decisions
June-July 2019

Classes Commence
September 2019

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#KEEPGOINGPLACES  #MERITMATTERS