



**IICSE University**  
...a liberal arts education

# MS in Electronic Physics Graduate Program

## Master of Science in Electronic Physics (MS)



**MS**

**ELECTRONIC  
PHYSICS**

**P**hysics is the most fundamental and all-inclusive of the sciences; its goal is to understand nature's physical processes through experiment and theoretical analysis. Some of history's most famous scientists were physicists: Newton, Einstein, Maxwell, Curie, Hubble. Physicists probe the far reaches of space and the depths of the ocean; investigate the structure of the atom; design and program computers; solve environmental problems; and develop new manufacturing materials. Research in physics has paved the way for technological innovations such as the Internet, cell phones, lasers, fuel cells, diagnostic techniques in medicine, and solid-state electronics. Physicists lead some of the world's major technology companies.

The powerful array of technical skills acquired by physics majors-critical thinking and problem solving, computers, electronics, mathematical analysis, technical writing-are of practical importance in many areas of theoretical and applied science. Employers value the broad training, versatility, and laboratory experience of physics graduates. Career plans of the physics major may include graduate study in physics, materials science, biophysics, geophysics, oceanography, medical physics, or in various branches of applied science or engineering, among others.

The study "Master of Science in Electronic Physics" program combines the standard educations in Engineering Physics and Electronics, which makes you well-prepared to work with research and advanced technology development. The education is one of the most demanding programs and it provides substantial theoretical knowledge to meet future demands from the industry, society and academia.

[www.iicseuniversity.org](http://www.iicseuniversity.org)



**The Program Structure:**

Course Code	MS: <b>First Semester Courses</b>	Credit
EEC 801	Communication Skills	2
EEC 802	Analog Electronics	3
EEC 803	Communication Electronics	3
EEC 804	Digital Electronics	2
EEC 805	Network Theory	2
EEC 806	Mathematical Physics	3
<b>TOTAL CREDITS</b>		<b>15</b>
Course Code	MS: <b>Second Semester Courses</b>	Credit
EEC 811	Microwave Communication	2
EEC 812	Microprocessors	3
EEC 813	C++ Programming	3
EEC 814	Power Electronics	2
EEC 815	Classical Mechanics	2
EEC 816	Quantum Physics	3
<b>TOTAL CREDITS</b>		<b>15</b>
Course Code	MS: <b>Third Semester Courses</b>	Credit
EEC 821	Digital Signal Processing	2
EEC 822	Programming Logic Controllers Radio	3
EEC 823	Wave Propagation and Antenna	3
EEC 824	Electronics	2
EEC 825	Physics Laboratory	2
EEC 826	Computational Physics	3
<b>TOTAL CREDITS</b>		<b>15</b>
Course Code	MS: <b>Fourth Semester Courses</b>	Credit
EEC 831	Optical Fiber Communication	2
EEC 832	Embedded System	3
EEC 833	Programmable Peripheral Interfaces	3
EEC 834	Digital Communication	2
EEC 835	Statistical Mechanics	2
EEC 836	Master Thesis	3
<b>TOTAL CREDITS</b>		<b>15</b>

**The thesis**

A thesis on a particular topic of your choice (with a Supervisor's approval) will be completed by each student in the last semester. There is considerable scope in the choice of subject areas by the student and the research method employed. Each student is allocated a supervisor who guides them through the thesis. The thesis aims to assimilate the theoretical and practical elements of the academic program of study.

**Duration of program:** A Semester runs for a period of three months. Our "Master's Degree" programs are completed within the period of four semesters (one year). We allow extension in the period of study, in case your courses could not be completed within the stipulated time frame. No additional fee, no extra charge for extension in the period of study.

**How to apply**

Prospective student must complete the Admission Form and pay the processing fee of \$45 USD or its equivalent. The processing fee is refundable if admission is denied.

