PhD Avionics Engineering

PhD in Avionics is a 48 credit hour program beyond Masters which includes a PhD dissertation equivalent to 30 credit hours and 18 credit hours of course work in the student's chosen area of specialization. Requirement for obtaining a PhD degree includes:

1. Maintaining a CGPA in the course work as per university policy.
2. Passing of the PhD qualifying exam.
3. Acceptance for publication of at least one paper in a peer reviewed journal listed in the ISI citation index.
4. Two positive reports about the student's research work from international scholars in the field.
5. Successful defense of the PhD thesis.

The PhD degree is expected to be completed in four years. The maximum time allowed for the PhD program is six years, while the minimum time required for completion of PhD degree requirement is three years.

Course Requirements

A PhD student is required to take six of the following courses:

Course No.	Course Title
AV-610	Linear Systems Theory
AV-611	Linear Multivariable Feedback Control Systems
AV-620	Random Processes
AV-621	Digital Signal Processing
AV-626	Digital Communications
AV-630	Wireless Communications I
AV-632	Software Engineering
AV-640	Electromagnetic Field Theory
AV-641	Transmission Lines and Waveguides
AV-712	Optimal Control

AV-713	Non-Linear Systems
AV-714	Flight Dynamics & Control
AV-715	Robust Control
AV-716	Adaptive Control
AV-717	Soft Computing Systems
AV-718	System Identification
AV-719	Neural Networks
AV-720	Avionics Systems Integration
AV-722	Stochastic Systems
AV-723	Detection & Estimation
AV-724	Embedded System Design
AV-725	Communication Networks
AV-726	Array Signal Processing
AV-727	Radar Signal Processing
AV-731	Wireless Communications II
AV-734	Principles of Real-Time Computing
AV-735	Design and Analysis of Algorithms
AV-736	Optimization
AV-737	Image Processing
AV-738	Adaptive Filter Theory
AV-739	Introduction to Chaos
AV-740	Multimedia Signal Processing
AV-741	Digital Video Processing
AV-742	RF and Microwave Circuit Design
AV-743	Microwave Engineering
AV-744	Microwave Electronic Devices
AV-745	Analog IC Design (Bipolar)
AV-747	Semiconductor Device Technology

AV-749	Analog IC Design (MOS)
AV-760	Power Electronics
AV-819	Instrumentation & Measurement for Aerospace Applications
AV-827	Navigation Systems
AV-828	Missile Guidance
AV-829	Information Theory
AV-831	Computer Vision
AV-833	Model based Software Testing
AV-846	Advanced Antenna Engineering
AV-848	Microwave Design
AV-880	Advanced Topics in Control Engineering
AV-881	Advanced Topics in Communications
AV-882	Advanced Topics in Microwave Engineering
MA-644	Advanced Engineering Mathematics
AV-899[1]	PhD Thesis

[1]Compulsory