航空航天学院 空天科学技术研究院

School of Aeronautics and Astronautics Institute of Astronautics & Aeronautics

Introduction

Focus on aeronautics & astronautics Engineering

Expand space information technology application

Develop advanced research and development projects

Offer postgraduates extensive selection of research projects

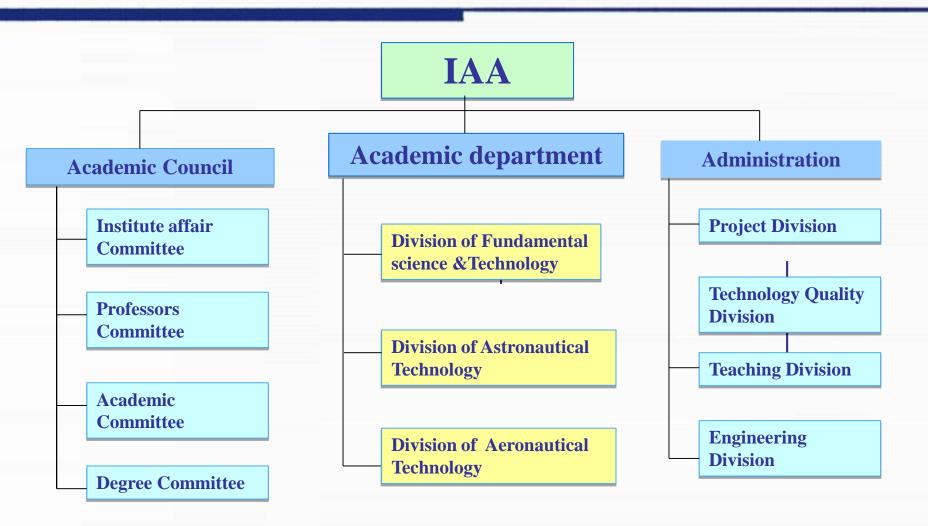
July, 2006 Institute of Astronautics & Aeronautics

May, 2012 School of Aeronautics and Astronautics

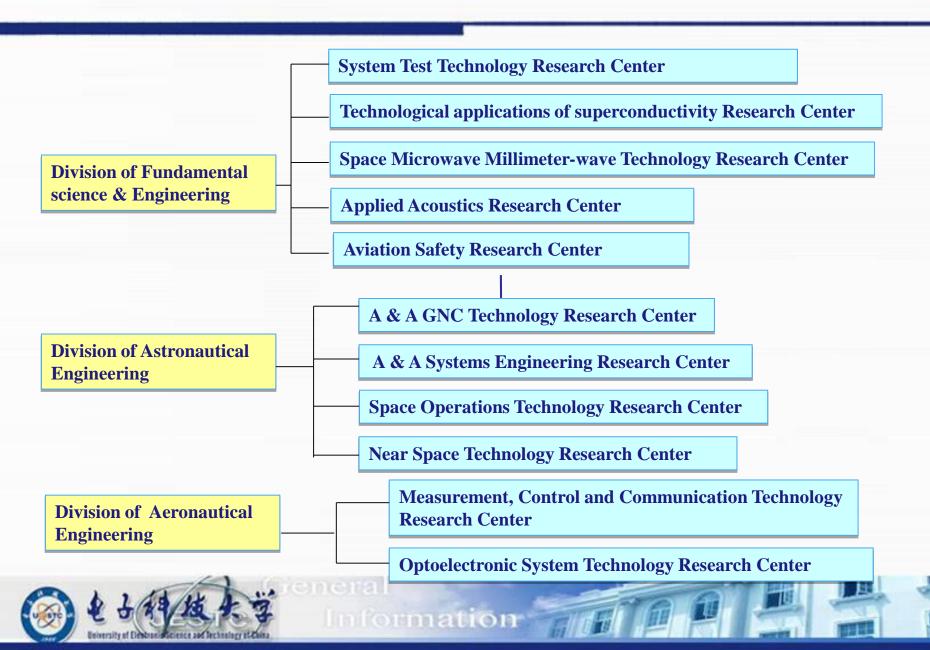
We have more than 80 faculty members, providing expertise in aeronautics and astronautics engineering.



Organization



Organization



Postgraduate

Systems Engineering

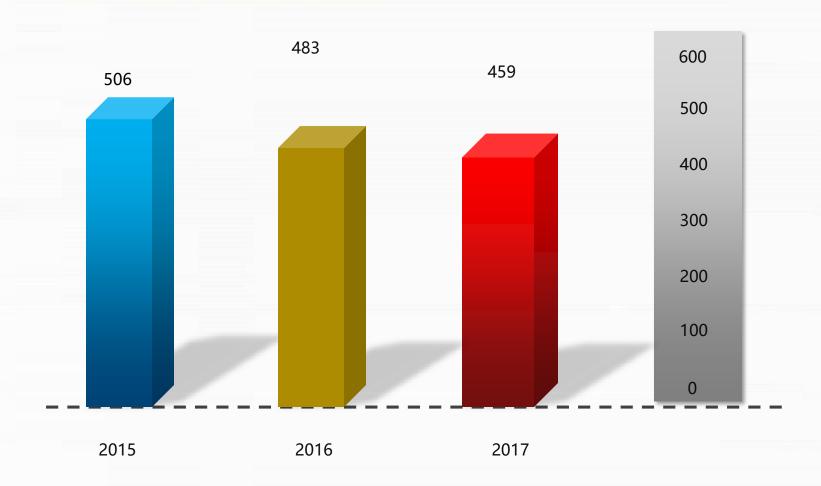
Space Information Engineering

Navigation, Guidance and Control

Space Control Engineering

ME, Ph.D, part-time ME Control Engineering and science

Students studied in Recent 3 Years(Master & Ph.D)



Students Admitted & Graduated in Recent 3 Years(Master & Ph.D)





Undergraduate

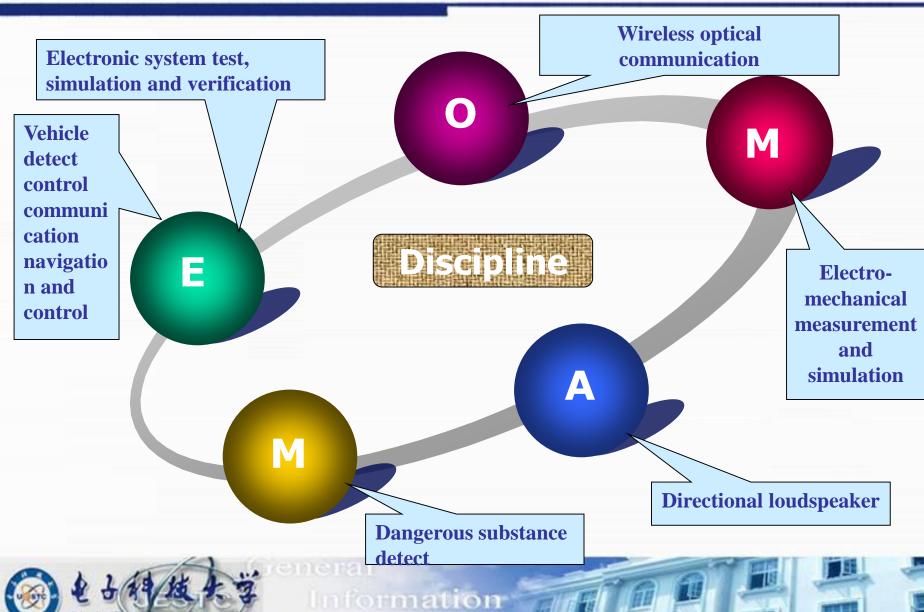
Space Information Technology

Navigation and Guidance

Flight Mechanics and Control

Bachelor
Navigation, Guidance
and Control

Discipline construction



Platform construction

Space Information System Simulation Testing and Verification

Space-earth integration measurement ,control and communication technology, and space effective payload system technology
To serve overall design of manned space flight by using Simulation Testing and Verification Technology.

Near space Flight Technology

Aircraft navigation, measurement and control communication, space effective payload and flight testing validation

Platform construction

Novel Civil Aviation Technology

Air traffic management, modern aviation data communications technology, navigation technology, aerial surveillance electromagnetic spectrum management, information interconnect for military and civil aviation.

Man-machine intelligent system

Support the bodies and make the arthropod animals having the various shapes, protect the important organs, assist and enhance the movement ability, medium fro perception of environment

Joint Labs and Research Centers

		Name of the labs	Cooperative agency
	Domestic	Joint Lab for near Space Technology	CNAC Chengdu Aircraft Design Institute
		Joint Lab for Space Communication Technology	Xi'an Branch of China Academy of Space Technology
		Pinpoint Navigation and Guidance Engineering Center	Seventh Research Institute of China Aerospace Science and Technology Group
	International	Joint Lab for Semiconductor Manufacture and Industry Engineering	Intel Corporation
		Joint Lab for Intelligent Mechatronic Control	Microchip Technology Co. USA
		International Joint Lab for Remote Control Robot	University of Electro- Communications, Tokyo, Japan

Research in engineering field



Manned space flight Novel system of measuring and control communications, simulation testing and certification, and aerospace grade components.



Unmanned space flight Simulation test verification, integrated measuring communications and flight control, integrated effective payload, and near space aircraft.



Aviation safety technology Low-altitude air traffic control communication, navigation, surveillance technology, and aviation security detection.

Research focus

Aerospace Vehicle Digital Simulation & Fault Diagnosis

Vibration Analysis & Noise Detection and Control

Astronautics and Aeronautic Component & its Application

Astronautics and Aeronautic Electronic

System Simulation Testing and Verification

Astronautics and Aeronautic Optoelectronic System

Aerospace Vehicle Measurement and Control Communication, Navigation Control



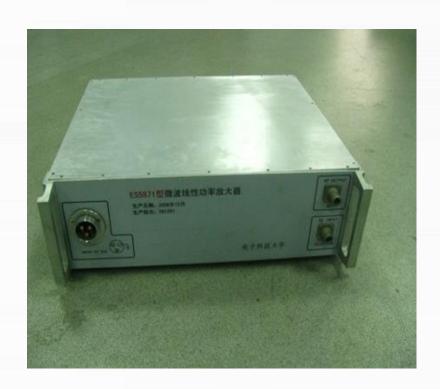
Jeneral Information

Institute of

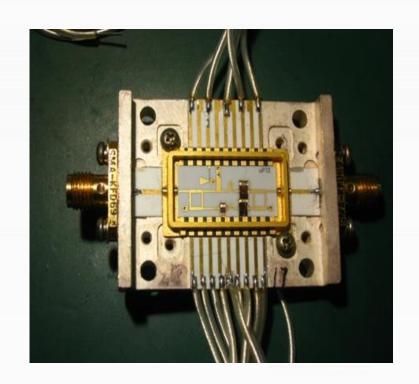
Aeronautics

Astronautics &

1. Electronic parts and components



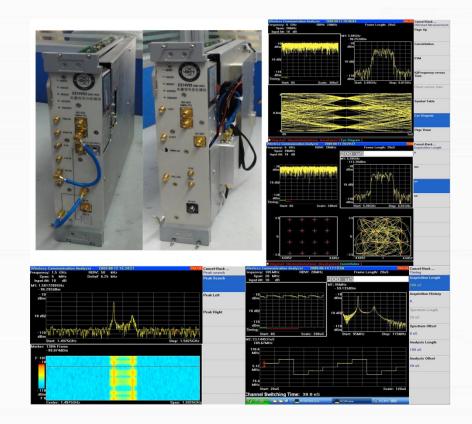
Linear high efficiency amplifier



Space traveling wave tube

2. Wireless broadband test equipment

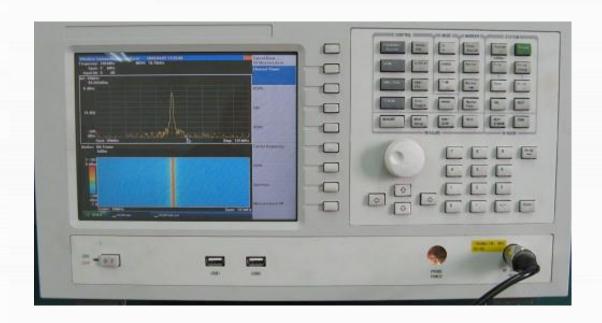




RF spectrum analysis

vector signal generator module

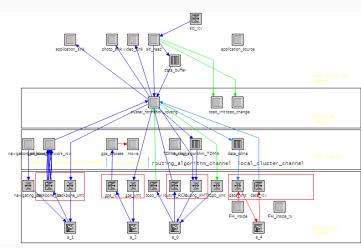




Radio Communication Analyzer

3. Space communication equipment





3-channel high-sensitivity, hightemperature superconductivity, anti-jamming receiver system

Communication network simulation system

Lithium battery electrochemical test system

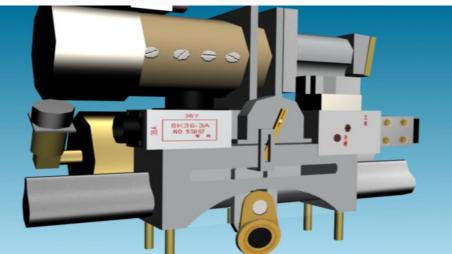








Launch Vehicle Visual Simulation System





4. Directional Loudspeaker



Audio near-distance directional loudspeaker for portable multimedia devices

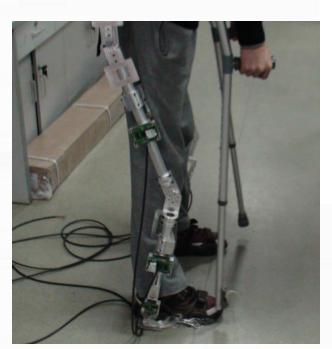




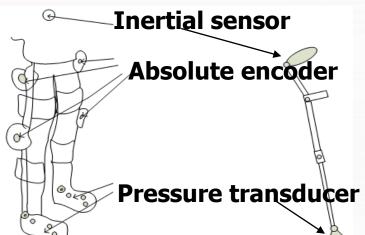
High power directional loudspeaker

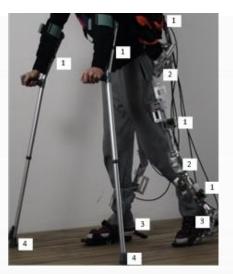


Human lower extremity exoskeleton robot



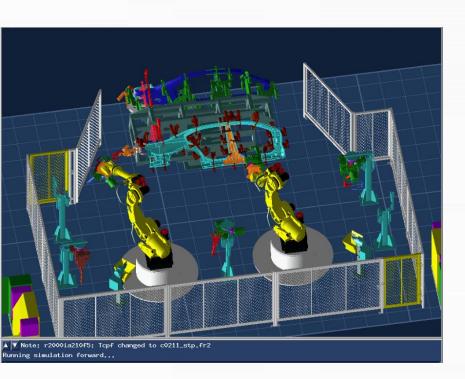
thighs, lower leg, feet and hip joint, knee joint and ankle joint.

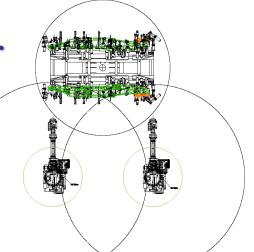




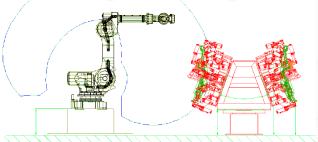


Multi-robot alternate welding side car based on virtual manufacturing





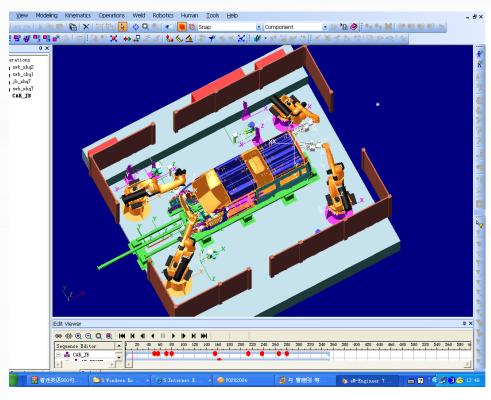
Multi-robot alternate welding working distance

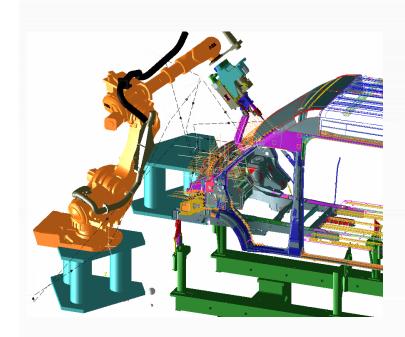


Lateral



Multi-robot working station in Body-in-white assembly





Motion trajectory planning of welding robot

TCP/IP remote robot control UESTC(China) UEC(Japan) Main tasks: >Data acquisition via internet Internet >Quik image processing for target tracking >Path Planning for Navigation >Data Sending with Delay Time LAN I/O converter LAN I/O controller Compensation TCP/IP. UDP TCP/IP, UDP Signal transmitter Signal transmitter Color Web-Camera Singnal, Reciever on Robot [Singnal/ Reciever on Robot



Thank You!