



# NANJING UNIVERSITY OF AERONAUTICS AND ASTRONAUTICS

Double First-Class Chinese University



# WELCOME TO NUAA

Nanjing University of Aeronautics and Astronautics, commonly referred as NUAA, is a leading research oriented comprehensive university which enjoys multiple disciplines in Engineering technology, natural sciences, business and management and social sciences. Established in 1952 NUAA strives to conduct world-level research and education with an emphasis on aerospace technology, astronautics and civil aviation

NUAA is among the first batch of national universities entitled to award doctoral degree. Enlisted as “**National Project 211**” and “**Project 985 Innovative platform for Engineering discipline**” universities, it is one of the 55 universities in China with a graduate school.

We take a coordinated approach through our research Institute to enable the best minds to work together on exciting new areas of study and discovery. NUAA is a pioneer of helicopter technology and consists of key national laboratories in different areas of research, innovation and defense.

NUAA adheres to the “Open University” strategy and internationalization is an important element of our curriculum and research, campus culture and cooperation. Over the years we have successfully established joint academic and research institutes worldwide through our coordinated strategic cooperation in academia and research with leading universities and enterprises. This has enabled us to get the accolade of Double World-Class Chinese University.



President Prof. Shan Zhongde  
Nanjing University of Aeronautics and  
Astronautics (NUAA)



# HISTORY



# STUDENTS

Undergraduates: **18,779**

Graduate Students: **10,943**

Overseas Students: **930**

Year 2018/19: **30652**

# RANKING



WORLD RANKING

7

Best Universities for Aerospace Engineering



WORLD RANKING

116

Best Global Universities for Engineering



WORLD RANKING

64

Best Universities for Electrical & Electronics  
Engineering



WORLD RANKING

47

Best Universities for Mechanical Engineering

**0.1%**

World's top 0.1%  
Engineering Discipline  
World Essential Science  
Indicator (ESI)

**1%**

World's top 1% Material  
Sciences, Chemistry,  
Computer Science,  
Social Sciences (General)  
Discipline Ranking in ESI

**Top #3**

Often ranked within top 3  
universities in China for  
Aerospace and Mechanical  
Engineering Discipline  
Ranking in ESI

# PROGRAMS

Post-Doctoral Stations: **17**

Programs for Phd Students: **70**

Programs for Master Degree Students: **166**

Programs for Bachelor Degree Students: **58**

# FACULTIES & STAFFS

**3,072**  
Faculties  
&  
Staffs

Professors: **516**

Associate Professors: **745**

Lectures: **564**

Other Staff: **1247**

**11**  
Academicians of Chinese  
Academy of  
Sciences/Engineering

**600**  
Talents Program

**20**  
“Yangtze River  
Scholars”

**4**  
CAMPUSES



Minggugong Campus



Jiangjunlu Campus



Tianmuhu Campus



Jiangbei International Campus

# TEACHING AND EXPERIMENT FACILITIES



National Center for Mechanics Teaching



Satellite Center



Human Factors Engineering Laboratory



Integrated Avionics Laboratory



Mass Data Analysis Laboratory



Compressor Test Bench



Engineering Training Center



Institute of Grey Systems Studies



# LEADING RESEARCH

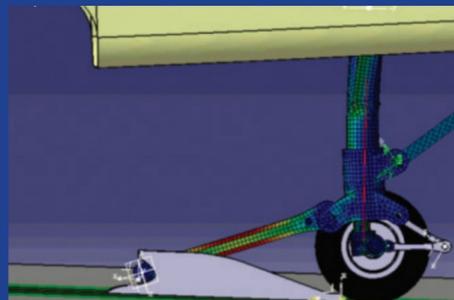
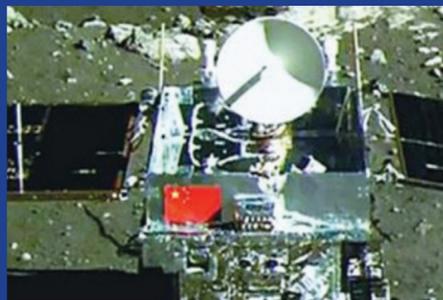
## 1 Aircraft Design

NUAA has strong research initiative focused on Aircraft design. Forming a comprehensive system in research and exploring Advanced Design Technology of Flight Vehicle, New Concept research and Engineering Model Development. NUAA has been leading the domestic level in the fields of Helicopter and Unmanned Aerial Vehicle.



## 2 Structural Mechanics & Control

The Structural Mechanics and Control research center represents the highest level of Aviation Technology research in China. It is primarily focused on Nonlinear Dynamics and Control, Analysis of Aircraft Structure Dynamics and Control, Ultrasonic Motor Technology, Intelligent Structures Applied in Aircraft, Unsteady Aerodynamics and etc.



## 3 Advanced Manufacturing

Research on advanced manufacturing at NUAA takes the leading domestic position in Premise micro-fabrication, Curved Surface Modeling, Modeling and Fabrication of Titanium Structure, Machining of difficult-to-cut metals and Special Working Technology, Technology of Digital Assembly and Automated Placement Technology of Composite and etc.



# LEADING RESEARCH

## 4 Navigation, Guidance and Control

NUAA's research work on navigation, guidance and control has progressed a lot in the recent years, the main research are focused on fields as Airborne Precise Autonomous Navigation, Advanced Flight control & simulation, Smart selfrepairing and Control and etc.



## 5 Power Electronics and Power Drives

Research areas involving Air Power, Power Conversion and Special Motor Technologies have exerted great domestic influence; some of the prototype performances have even reached the advanced international level.



# COLLEGES AND DEPARTMENTS



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## 1. College of Aerospace Engineering

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- Department of Aircraft
- Department of Aerodynamics
- Department of Structural Engineering & Mechanics
- Department of Ergonomics and Environmental Engineering
- Department of Civil Engineering

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## 2. College of Energy and Power Engineering

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- Department of Power Engineering
- Department of Thermal Engineering
- Department of Vehicle Engineering

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## 3. College of Automation Engineering

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- Department of Automatic Control
- Department of Electrical Engineering
- Department of Measuring & Testing Technology
- Department of Biomedical Engineering

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## 4. College of Electronic and Information Engineering

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- Department of Electronic Science and Technology
- Department of Information Communication Engineering

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## 5. College of Mechanical and Electrical Engineering

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- Department of Industrial Design
- Department of Mechanical Manufacturing & Automation
- Department of Manufacturing Engineering of Aerospace Vehicle
- Department of Mechatronic Engineering
- Department of Design Engineering

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## 6. College of Materials Science and Engineering

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- Department of Material Science and Engineering
- Department of Applied Chemistry
- Department of Nuclear Engineering

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## 7. College of Civil Aviation

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- Department of Air Traffic Management
  - Department of Transportation Management
  - Department of Civil Aviation Engineering
  - Department of Man-Machine and Environment Engineering
  - Department of Flight Technology
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## 8. College of Science

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- Department of Mathematics
  - Department of Physics
  - Department of Physics Experiment Center
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## 9. College of Economics and Management

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- Department of Management Science & Engineering
  - Department of Business Administration
  - Department of Applied Economics
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## 10. College of Humanities and Social Sciences

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- Department of Law
  - Department of Public Administration
  - Department of Politics
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## 11. College of Art

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- Department of Music
  - Department of Arts
  - Department of Journalism and Communication
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## 12. College of Foreign Languages

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- Department of English
  - Department of Japanese
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## 13. College of Astronautics

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- Department of Aerospace Control System
  - Department of Aerospace Information & Application
  - Department of Space Science & Application
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## 14. College of Computer Science and Technology

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- Department of Computer Science and Technology
  - Department of Software Engineering
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## 15. College of Marxism

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## 16. Changkong College

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## 17. College of International Education

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# NATIONAL AND PROVINCIAL KEY LABORATORIES

“NUAA is the pioneer for helicopter technology in China”

With an annual research budget of USD\$ 150 million our size and history allows a breadth of research activity that can be matched by only a few universities in China. We take a coordinated approach through our research institute to enable the best minds to work together on exciting new areas of study and discovery.

Our faculty is comprised of teachers, researchers and scientists who are paving the way for solutions to complex, global issues impacting our environment, technology and future. NUAA is the pioneer for helicopter technology and is comprised of several national key laboratories in different streams for research and national defense.

(A) State Key Laboratory

State Key Laboratory of Mechanical Structural Mechanics and Control

(B) Key Laboratory of National Defense Science and Technology (national level)

National Key Laboratory of Helicopter Rotor Dynamics

National Key Laboratory of Helicopter Drive Technology

(C) Center for Research and Application of National Defense Science, Technology and Industry Technology

Innovation Center of High Efficiency Electrical Machining Technology for Complex Structure

(D) National Local Joint Engineering Laboratory

National Local Joint Engineering Laboratory of Ultrasound Motor

(E) Provincial and ministerial key laboratories

Key National Defense Subject Laboratory of Precision Driving Technology

Key National Defense Subject Laboratory of Advanced Aircraft Design Technology

State Key Laboratory of Air Traffic Control Flight Flow Management Technology

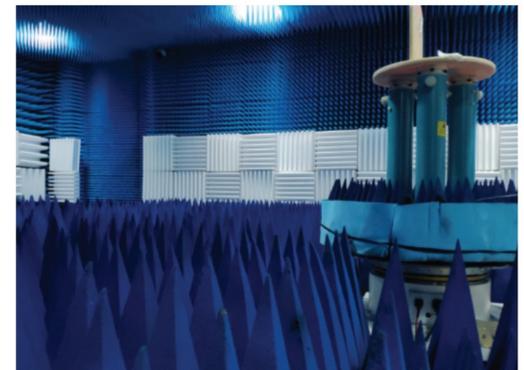
Key Laboratory of the MOE for Nano-Intelligent Materials and Devices

Key Laboratory of Radar Imaging and Microwave Photon Technology, MOE

Key Laboratory of Aeroengine Thermal Environment and Thermal Structure, MIIT

Key Laboratory of Electrical System of Multi-Electric Aircraft, MIIT

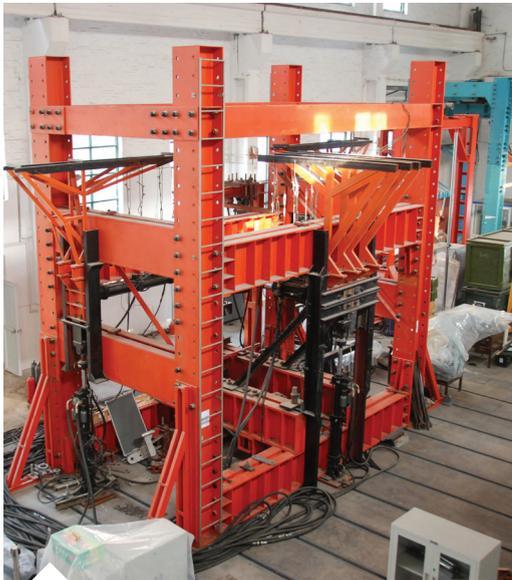
Key Laboratory of Advanced Technology of Small and Medium-sized UAV, MIIT  
Key Laboratory of Navigation, Control and Health Management of Advanced Aircraft  
Key Laboratory of Material Preparation and Protection Technology for Harsh Environment, MIIT  
Key Laboratory of MIIT for Software Development and Verification of High Safety Systems  
Key Laboratory of Air Vehicle Environmental Control and Life Support, MIIT  
Key Laboratory of the MIIT for Non-destructive Testing and Monitoring Technology of High Speed Transportation Fac  
Key Laboratory of Spatial Cognitive Dynamic System of Electromagnetic Spectrum, MIIT  
Key Laboratory of Mode Analysis and Machine Intelligence, MIIT  
Key Laboratory of MIIT, Deep Space Catalogue Exploration Agency  
Key Laboratory of Unsteady Aerodynamics and Flow Control, MIIT  
Jiangsu Key Laboratory of High-tech Research on Precision and Micro-fabrication  
Jiangsu Key Laboratory of High-tech Research on Wind Turbine Design  
Jiangsu Key Laboratory of Aviation Power Systems  
Jiangsu Key Laboratory of High Efficiency Electrochemical Energy Storage Technology  
Jiangsu Key Laboratory of Digital Medical Equipment Technology  
Jiangsu Key Laboratory of New Energy Generation and Power Conversion  
Jiangsu Key Laboratory of Internet of Things and Control Technology  
Jiangsu Key Laboratory of Energy Conversion Materials and Technology  
Jiangsu Key Laboratory of Bionic Functional Materials  
Key Laboratory of Aeronautical Science and Technology for Intelligent Materials and Structures  
Key Laboratory of Aviation Science and Technology for Aviation Power Supply  
Jiangsu Nuclear Energy Equipment Materials Engineering Laboratory  
Engineering Laboratory of Small and Medium-sized Green Power Plant in Jiangsu Province  
Jiangsu High Performance Metal Component Manufacturing Engineering Laboratory



MIIT = Ministry of Industry and Information Technology, P.R China

MOE = Ministry of Education, P.R China

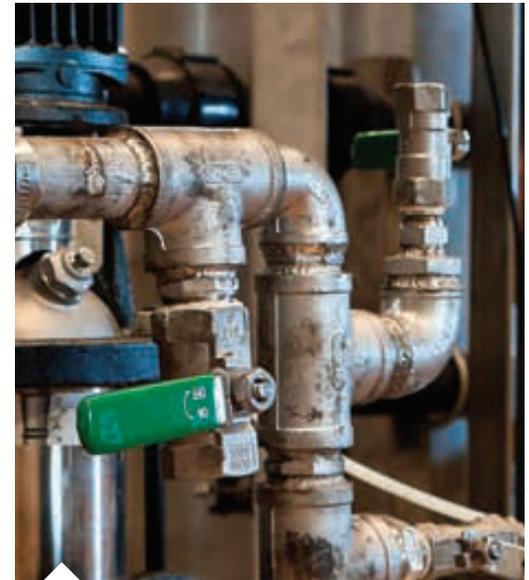
# NATIONAL KEY R&D BASES



State Key Laboratory of Mechanics and Control of Mechanical Structures



State Key Laboratory of Helicopter Rotar Dynamics



National Engineering Research Center for Processing of Difficult to Machine Materials



National Key Laboratories of Air Traffic Control



National Joint Engineering Laboratory of Ultrasonic Motors



State Key Laboratory of Helicopter Transmission Technology

# STUDENT'S INNOVATION



## AG600

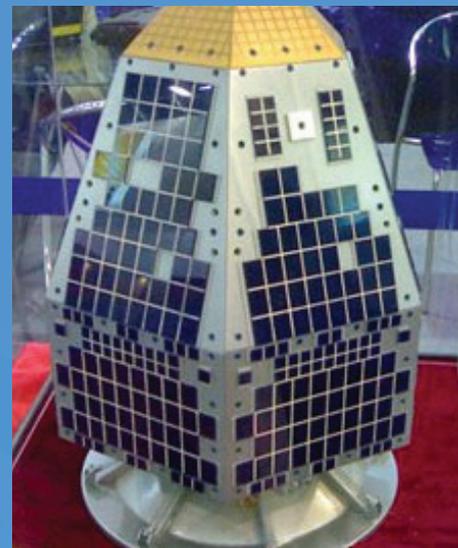
World's Largest Amphibious Aircraft  
co-developed by NUAU and AVIC

## C919

China's First Big Jetliner  
Chief Designer – Dr. Wu Guanghui,  
NUAA class of 1982



Flapper MAV



TX-1 Chinese Microsatellite built by  
NUAA



Ultra High Speed Switched  
Reluctance Motor



Aurora Unmanned Rotorcraft



Premier Li Keqiang meets  
with NUAU Youth Olympic  
volunteers

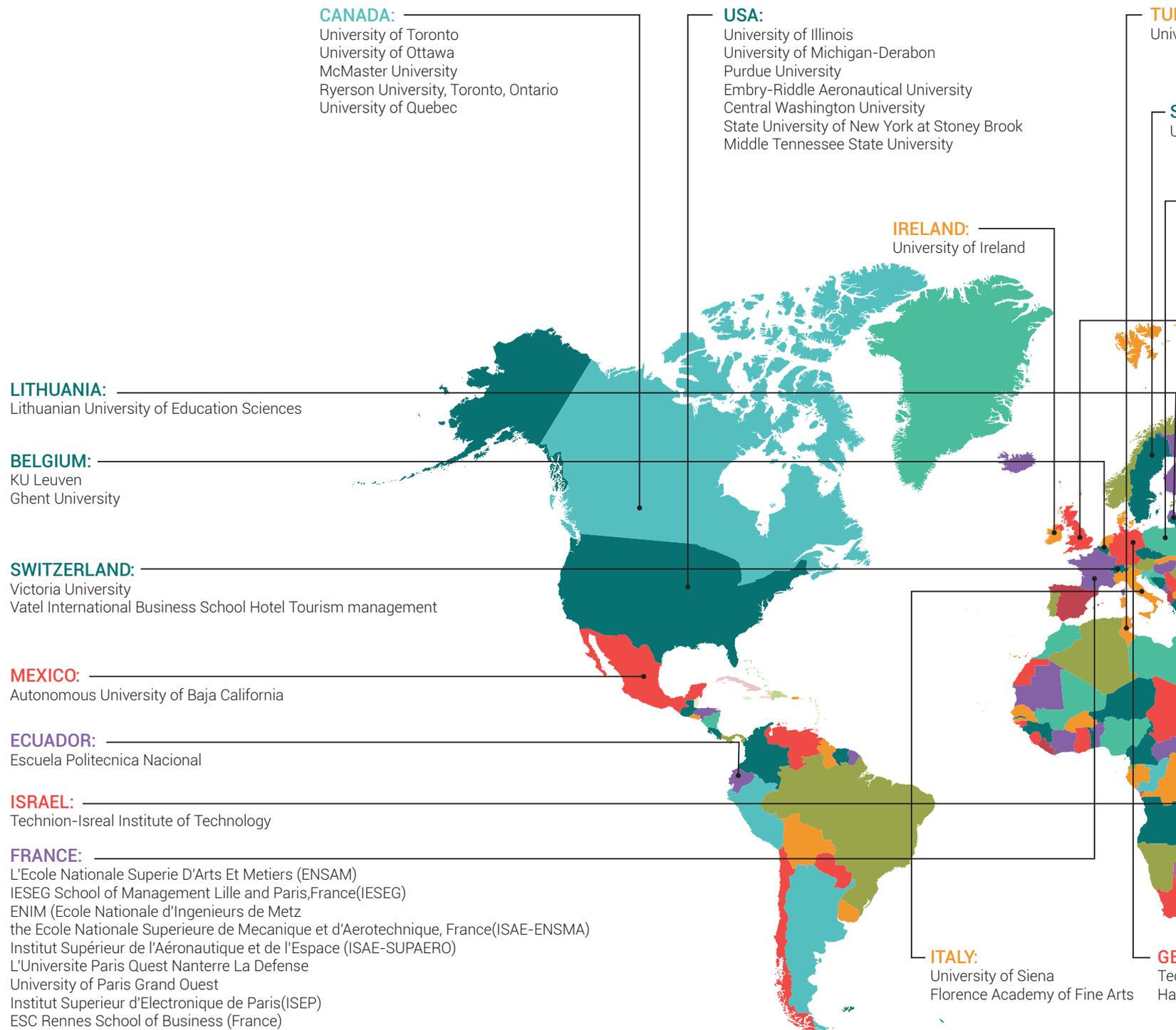


1st Prize Winner at the  
"Fly Your Idea"  
by AIRBUS – 2012



1st Prize Winner  
Students Satellite  
Innovation Design, ASRTU  
- 2016

# INTERNATIONAL COLLABORATION



**TUNISIA:**

University College of Aviation & Technology-EAST

**SWEDEN:**

University West

**POLAND:**

Warsaw University of Technology

**UKRAINE:**

Kharkiv Aviation Institute

**INDIA:**

Manipal University

**AUSTRALIA:**

Swinburne University of Technology  
 Monash University, Australia  
 University of Technology, Sydney  
 the University of Western Australia  
 Royal Melbourne Institute of Technology

**RUSSIA:**

Samara National Research University  
 Ural Federal University  
 Kazan National Research Technical University  
 Moscow Aviation Institute

**UK:**

Loughborough University  
 Cardiff University  
 Cranfield University  
 City University of London  
 University of Nottingham  
 Manchester Metropolitan University  
 Queen's University of Belfast  
 University of Edinburgh  
 University of Bristol  
 Swansea University  
 The University of Glasgow

**JAPAN:**

Kochi University  
 Tohoku University  
 Waseda University  
 Sophia University

**SOUTH KOREA:**

Korea Advanced Institute of Science and Technology(KAIST)  
 Keimyung University  
 Sogang University

**THAILAND:**

Chiang Mai University

**TURKEY:**

Anadolu University

**PAKISTAN:**

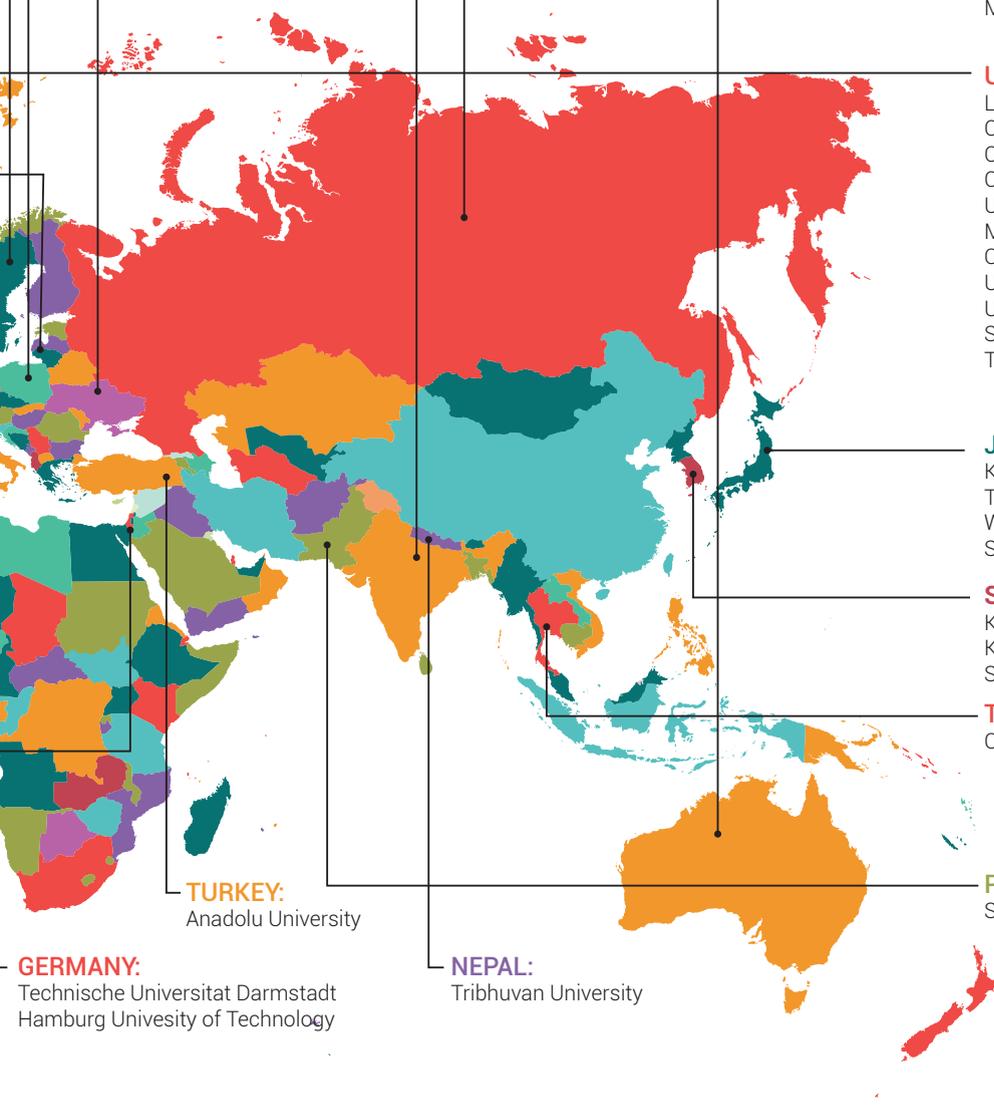
Superior University

**GERMANY:**

Technische Universität Darmstadt  
 Hamburg University of Technology

**NEPAL:**

Tribhuvan University



# GOING GLOBAL

NUAA adheres to the “Open University” strategy and internationalization is an important element of our curriculum and research, campus culture and cooperation. Over the years we have developed and implemented several strategic cooperation in academia and research with leading universities and enterprises worldwide.

## A. Developing its reputation as an Institution of choice for world leading scholars and diverse international students.



Prof. Piotr Vasiljev receiving National Friendship Award (2012)

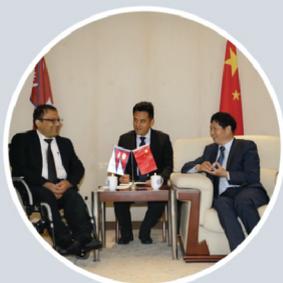


Prof. Eberhard Abele receiving National Friendship Award (2014)



Prof. Hob Stanislav receiving National Friendship Award (2018)

## B. Advancing educational and research partnership to boost international development and capacity building.



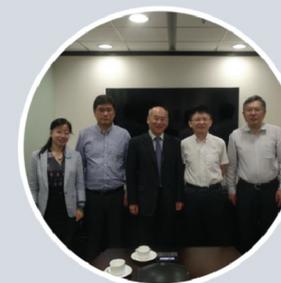
Party Secretary Zheng Yongan with Nepalese minister Lamsal Sushil Kumar



President Prof. Shan Zhongde Participates in The 6th NUAA International Cultural Festival Opening Ceremony



Vice President Prof. Xu Xiwu at University of Technology, Sydney, Australia



Vice President Prof. Huang Zhiqiu at Hong Kong Polytechnic University



Vice President Prof. Shi Daning and Assistant to President Prof. Xiong Ke with Prof. Iain Watt, Vice President of University of Technology, Sydney



Vice-President Prof. Song Yingdong with Prof. Bach Bingba, Vice President of Royal University of Technology, Thailand



Deputy Secretary Tao Yong participated in the 5th China-Russia Transportation University Presidents' Forum



Vice President Prof. Jiang Bin with Yury Nikalaichyk Vice President of National Technical University of Belarus

### C. Improving cross cultural competencies, by providing international mobility opportunities.



NUAA students at partner universities



International Exchange Students at NUA A

### D. Fostering collaboration with industry partners with an innovative approach.



NUAA has successfully established several joint academic and research institutes worldwide and has been recently approved as "One Belt and One Road" special project.

# ACADEMIC AND RESEARCH COOPERATION

NUAA has established extensive academic contacts and conducts close academic exchange and research cooperation with many universities and research institutes both at home and abroad



330+

Experts visit NUAA every year to give lectures, perform joint research work, co-supervise students



10+

International conferences hosted & 200+ academic staffs attend international academic conference and activities abroad



800+

Exchange and degree-seeking international students each year



500+

NUAA students go for exchange study with partner universities worldwide.



100+

countries represented by the international students body at NUAA



100+

Strong industrial connection at thome and abroad





Each year NUAA organizes Summer Lecture Program. Inviting top academicians from all over the world to deliver two weeks intensive lecture to our students.



# STUDENT ENGAGEMENT



## LEARN

Students at NUAA get the best infrastructure and resources for all the learning needs in order to succeed in their college life and future.



## CONNECT

A key to a successful college experience starts by finding ways to get involved in campus life. NUAA offers great resources to all the students in order to get the best during your time here. There are numerous events, clubs and communities, organizations to help you connect with other students.



## LEAD

Developing and maintaining leadership skills is an essential step during your time in campus and beyond. We help and facilitate students with many opportunities to explore and sharpen leadership skills.



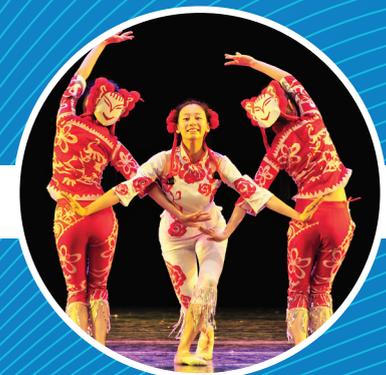
Volunteering  
Activities



Innovation  
Activities



Talent  
Activities



Cultural  
Activities

# CAMPUS LIFE



# PROGRAMS OFFERED AT NUAA

COLLEGE OF AEROSPACE ENGINEERING	Bachelor	Master	Doctoral
Flight Vehicle Design & Engineering	•	•	•
Flight Vehicle Environment & Life Protection System	•		
Civil Engineering	•	•	•
Engineering Mechanics	•	•	•
Machine Design and Theory		•	
Instrument Science and Technology		•	
Refrigeration and Cryogenic Engineering		•	
Road and Railway Engineering		•	•
Solid Mechanics			•
Fluid Mechanics			•
Measuring and Testing Technology & Instruments			•
Man-Machine & Environment Engineering			•
Mechanical Design and Theory			•
Helicopter Engineering			•
Nanomechanics			•
Active Monitoring and Control			•
General and Fundamental Mechanics			•

COLLEGE OF ENERGY & POWER ENGINEERING	Bachelor	Master	Doctoral
Power Engineering	•	•	
Thermal Energy Engineering	•	•	•
Vehicle Engineering	•	•	•
Aerospace Propulsion Theory and Engineering		•	•
Mechanical Design and Theory		•	•
System Simulation and Control		•	•
Aerospace Science and Technology			•

COLLEGE OF AUTOMATION ENGINEERING	Bachelor	Master	Doctoral
Electrical Engineering and Automation	•		
Automation	•		
Biomedical Engineering	•	•	
Detection, Guidance and Control Technology	•		
Measurement and Control Technology & Equipment			
Navigation Guidance and Control		•	•
Control Theory and Control Engineering		•	•
Pattern Recognition and Intelligent Systems		•	•
Detection Technology and Automatic Equipment		•	•
System Engineering		•	•
Power System and its Automation		•	•
Power Electronics and Power Drive		•	•
Electrical Machines and Electrical Apparatus		•	•
Measuring and Testing Technology and Instruments		•	•
Precision Instruments and Machinery		•	•

COLLEGE OF ELECTRONIC & INFORMATION ENGINEERING	Bachelor	Master	Doctoral
Electronic Information Science and Technology	•		
Microwave, Millimeter System & Device Technology	•		
Information Engineering	•		
Microelectronics	•		
Physical Electronics		•	

Circuits and Systems		•	
Electromagnetic Field and Microwave Technology		•	
Communication and Information System		•	
Signal Information and Processing		•	
Information and Communication Engineering			•

COLLEGE OF MECHANICAL & ELECTRICAL ENGINEERING	Bachelor	Master	Doctoral
Mechanical Engineering and Automation	•		
Industrial Design	•		
Flight Vehicle Manufacturing and Engineering	•		
Mechanical Manufacture and Automation		•	•
Aerospace Manufacture Engineering		•	•
Mechanical and Electrical Engineering		•	•
Mechanical Design and Theory		•	•
Industrial Designing		•	•
Material Processing Technology		•	•

COLLEGE OF MATERIALS SCIENCE & TECHNOLOGY	Bachelor	Master	Doctoral
Material Science and Engineering	•	•	•
Applied Chemistry	•	•	•
Nuclear Technology and Application	•	•	•
Material Physics and Chemistry		•	•
Material Processing Engineering		•	•
Physics and Chemistry		•	
Organic Chemistry		•	•
Environmental Engineering		•	•
Nuclear Technology and Application		•	
Radiation Protection and Environmental Protection		•	•
Physical Chemistry			•
Nuclear Science and Engineering			•

COLLEGE OF CIVIL AVIATION	Bachelor	Master	Doctoral
Traffic and Transportation	•		
Air Traffic Control and Flight Dispatch	•		
Air Traffic and Transportation Management	•		
Airport Operation Control and Management	•		
Aviation Maintenance Engineering	•		
Airworthiness Technology and Management	•		
Air Traffic Electronics and Electrical Engineering	•		
Flight Technology	•		
Safety Technology and Engineering		•	
Traffic Information Engineering and Control		•	•
Transportation Planning and Management		•	•
Vehicle Operation Engineering		•	•

COLLEGE OF SCIENCE	Bachelor	Master	Doctoral
Information and Computation Science	•		
Applied Physics	•		
Optical Information Science and Technology	•		
Fundamental Mathematics		•	
Computational Mathematics		•	
Applied Mathematics		•	
Operational Research and Cybernetics		•	
Probability and Math Statistics		•	
System Theories		•	

Systematic Analysis and Integrity		●	
Physics		●	
Optical Engineering		●	
Electronic Science and Technology		●	
Theory Physics		●	
Particle Physics and Nuclear Physics		●	
Atom and Element Physics		●	
Plasma Physics		●	
Condensed Physics		●	
Acoustics		●	
Optics		●	
Radio Physics		●	
Physic Electronics		●	
Mathematics		●	●
Physics		●	●

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES	Bachelor	Master	Doctoral
Science of Law	●		
Science of Politics and Administration	●		
Public Administration	●	●	
Fundamental Theory of Marxism		●	●
Education of Ideology and Politics		●	
Theory of Politics		●	
Philosophy of Science and Technology		●	
Sociology		●	
Science of Economic Laws		●	
Science of Constitution and Administrative Laws		●	
Science of Administration		●	
Social Work		●	
Science of Higher Education		●	
Theory of Curriculum and Teaching		●	
Science of Constitution and Administrative Laws		●	

COLLEGE OF ARTS	Bachelor	Master	Doctoral
Musical Performance	●		
Drama Stage Design	●		
Art Design	●	●	
Radio and Television Science	●		●
Music		●	
Drama		●	
Broadcasting and Television		●	
Dance		●	
Fine Art		●	

COLLEGE OF ECONOMICS AND MANAGEMENT	Bachelor	Master	Doctoral
Industrial Engineering	●	●	●
Information Management and Information System	●		
Electronic Business	●		
Business Management	●		
Marketing	●		
Accounting	●		
International Economics and Trade	●		
Finance	●	●	●
Management Science and Engineering		●	●
Systems Engineering		●	
Financial Engineering		●	●
Project and Engineering Management		●	
Logistics Management		●	
MBA		●	

Accounting		●	
Corporate Management		●	
Technological Economics and Management		●	
Public Management		●	
Administration		●	
Education Management		●	
Applied Economics		●	
Regional Economics		●	
Finance		●	
Industrial Economics		●	
International Trade		●	
Statistics		●	
Quantitative Economics		●	
Defense Economics		●	
Industrial and Program Management		●	●
Science and Education Management		●	●
Economic and Industrial Management		●	●

COLLEGE OF FOREIGN LANGUAGES	Bachelor	Master	Doctoral
English (International Trade)	●		
English (Civil Aviation)	●		
Japanese (International Trade)	●		
English Language and Literature		●	
Linguistics and Applied Linguistics		●	
Japanese Language and Literature		●	
Translation and Interpreting		●	
Curriculum and Instruction Theory		●	

COLLEGE OF ASTRONAUTICS	Bachelor	Master	Doctoral
Information Engineering(Aerospace)	●		
Detection, Guidance & Control Technology(Aerospace)	●		
Space Science and Technology	●		
Communication and Information System		●	
Navigation Guidance and Control		●	●
Flight Vehicle Design		●	
Man-Machine and Environment Engineering		●	
Space Physics		●	
Space Environment		●	
Space Application		●	

COLLEGE OF COMPUTER SCIENCE AND TECHNOLOGY	Bachelor	Master	Doctoral
Computer Science and Technology	●	●	●
Information Security	●		
Software Engineering	●		

COLLEGE OF INTERNATIONAL EDUCATION	Bachelor	Master	Doctoral
Aeronautical Engineering*	●	●	●
Mechanical Engineering*	●	●	●
Software Engineering and Management*	●	●	●
Electronics and Electrical Engineering*	●	●	●
International Business*	●	●	●

(Bachelors Program with \* are delivered in English Medium)



## NANJING UNIVERSITY OF AERONAUTICS AND ASTRONAUTICS

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[www.nuaa.edu.cn](http://www.nuaa.edu.cn)

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