



NUIST Contributions: First-rate Discipline for a WMO Education and Training Platform Aiming at Improved Professional Proficiency of Global NMHS

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Outline

■ ABOUT NUIST

■ NUIST ETR

■ NUIST STRENGTH IN ETR

■ VISIONS OF WMO-NUIST
PARTNERSHIP



NUIST



U.S. News & WORLD REPORT **EDUCATION**

#86

**Nanjing University of Information
Science & Technology**



China Nanjing, Jiangsu



#996 (tied) – Best Global Universities

NUIST was born to serve meteorological communities

- 86-USNews 2018
- 88-QS University Ranking Asia 2018
- ARWU World University Rankings
 - 1st-Atmospheric science
 - Top 25- Geography, Environmental Science and Engineering and other
- Listed among “Double First-rate Initiative” Universities in China

NUIST

Conceived and led by academic masters with global horizon



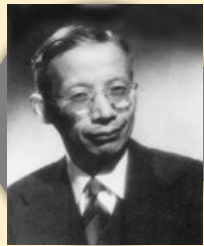
Liangjiang Normal School (1902)



National Southeast University (1920)



Nanjing Institute of Meteorology (1960)



ZHU Kezhen
Ph.D. University of Harvard
Architect of Meteorological Education of China



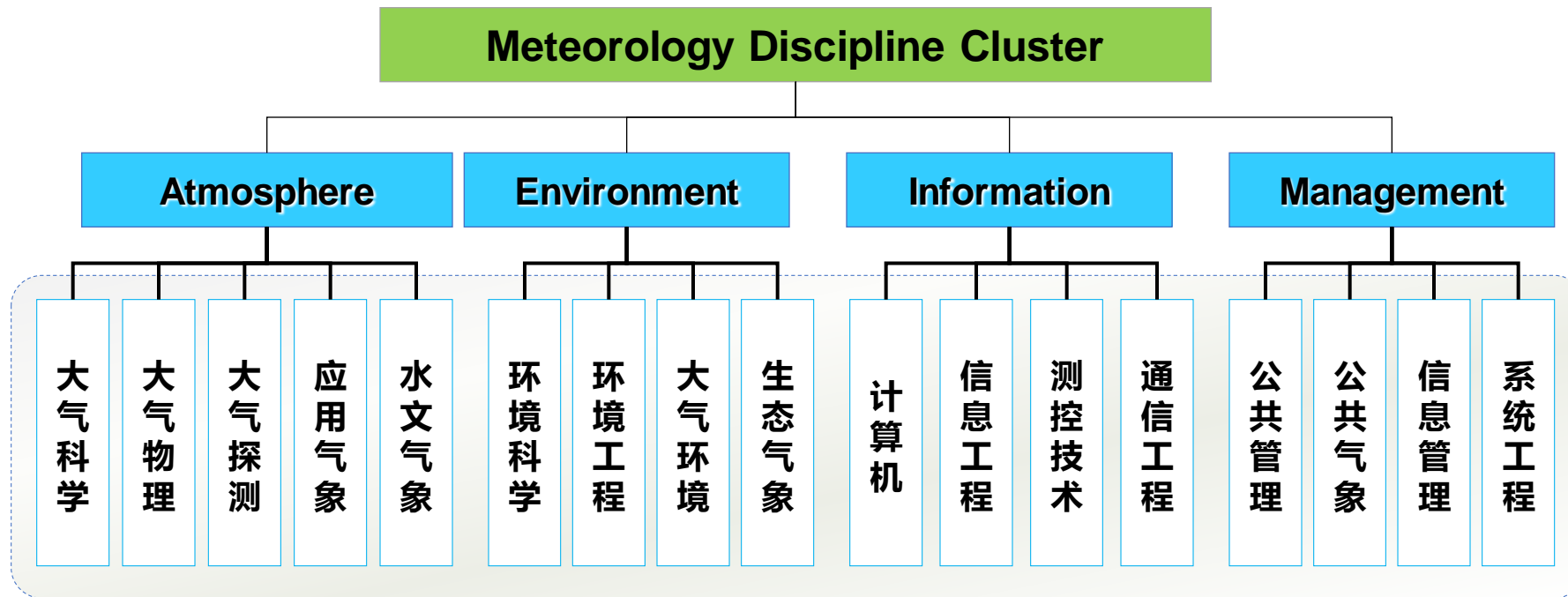
TU Changwang
Ph.D / University of Liverpool
First Director General Chinese Meteorological Administration



ZHU Hezhou
Ph. D/ University of California
First Dean
Department of Meteorology

NUIST

Multi-disciplinary support for ETR



Full coverage of meteorological programs and largest enrolment of meteorological students in China

International ETR Drives

College of International Students

- 1450 intl. students from 111 countries
- 200 Master and PhD candidates.

NUIST Reading Academy

- Enrolment of 600
- Joint project with University of Reading (seat of ECMWF)

Sino-Foreign Joint Programs

- University of Manchester
- Waterford Institute of Technologies
- Anglia Ruskin University
- University of Reading

Confucius Institute, UOB

- NUIST-UOB partnership

WMO Regional Training Center NJ

- The most active member in WMO ETR network

Typhoon Committee Training Center

- In collaboration with ESCAP/WMO.

International talent cultivation



CHEN Jingming
RSC, Canada



YAN Hong
Deputy SG WMO



WANG Xueliang
NOAA NCEP



LIU Zhengyu
American Geophysical Union



ZHANG Minghua
State University of NY



SHE Jun
Denmark Met. Institute



ZOU Xiaolei AMS,
USA



WENG Fuzhong
NESDIS-NOAA

NUIST alumni are found with

- ❑ RSC, AGU and AMS (20+)
- ❑ NOAA (87) and NASA (23)
- ❑ WMO Deputy SG (1) and directors (4)
- ❑ 72% of total number of Chinese professors in meteorology in the world.





WANG
Bin



WANG
Huijun



LI Xuhui



LIAO Hong



GE
Junxiang



LIU
Qingshan



LI Lianshui



ZHOU
Xianxin



ZOU
Xiaolei



CHEN
Haishan



GAI Xinlei



HU Jianlin



SUN
Xingming



WEN Geyi



SHI Jun



WU
Xianhua

Meteorology

Environment and Ecology

Computer & Information

Management

A row of white, louvered environmental monitoring stations (ETRs) mounted on concrete pillars in a grassy field. The stations are arranged in a line, receding into the distance. The background shows a line of trees and a hillside under a clear sky. The text "NUIST ETR" is overlaid in the center in a bold, blue font.

NUIST ETR

NUIST ETR

1980s



Joint training events with UK, Russia, Australia

1990



The first WMO training event

1993



Official unveiling of WMO RTC as approved by WMO Council

2006



The host of SYMET-X

2010



Appraisal from WMO on its contribution

2012



Appointed as Typhoon Committee Training Center

2015



First MSc. Program with Chinese Gov. & Host of COCOM meeting

2016



Target university for Intel. Students in Jiangsu & Pilot university of International Education Accreditation

NUIST ETR

INTERNATIONAL EXCHANGES



Agreement signing, Edinburgh, 1984



Visit of Prof. TU Qipu to the Bureau of Meteorology, New South Wales, 1985



Visit of Prof. Newman (Purdue University) to NUIST (then NIM), 1987

In the 1980s, partnership with over 20 universities and research institutes including:

- University of Edinburgh
- Russian State Hydro-meteorological University
- Meteorology Training Center, Bureau of Meteorology Australia

NUIST ETR

DEGREE PROGRAMS



Son Tae Song
(1st International PhD with
NUIST)



RAHMAN MOHAMMAD
ATIQR
Bangladesh



OGWANG BOB ALEX
Uganda



ZIN MIE MIE SEIN
Myanmar



Ph.D program in Atmospheric Science approved in 1993.

A complete higher-educational system
(Undergraduate to Post-doctorate Programs.)

Number of international student with NUIST PhD degrees reaches 57 (more than 30 Countries).

NUIST ETR | RTC NJ

First training event in 1990 marked the very beginning of our engagement in international training for NMHS around the world.



Workshop on Diagnostics and Predication of Monthly and Seasonal Atmospheric Variations

NUIST ETR | RTC NJ



Agreement Signing in Geneva by CMA director general ZOU Jinmeng and WMO SG G. O. P. Obasi.



Unveiling of the RTC in 1994.



Flag square with the RTC

The RTC was set up with the NUIST facilities in 1993

WORKSHOPS & SYMPOSIUMS



NUIST ETR

NON-DEGREE ETR



Weather Forecasting (1993-9)



Long-term Weather Forecast (1999-9)



Use and Maintenance of Meteorological Instruments (2003-4)



Synergized Standard Operational Procedures (2017-10)

NUIST-ETR



1990-2017



QUICK FACTS

134

**International
Training Courses**

Non-degree ETR

153

**Countries and
Regions**

34

**Bi-lateral Training
Courses**

3400 Trainees

One of 26 regional centers of WMO and one of the most active member in the community.

DEGREE PROGRAMS



First-hand contacts with China



Graduation ceremony of 2017 classes



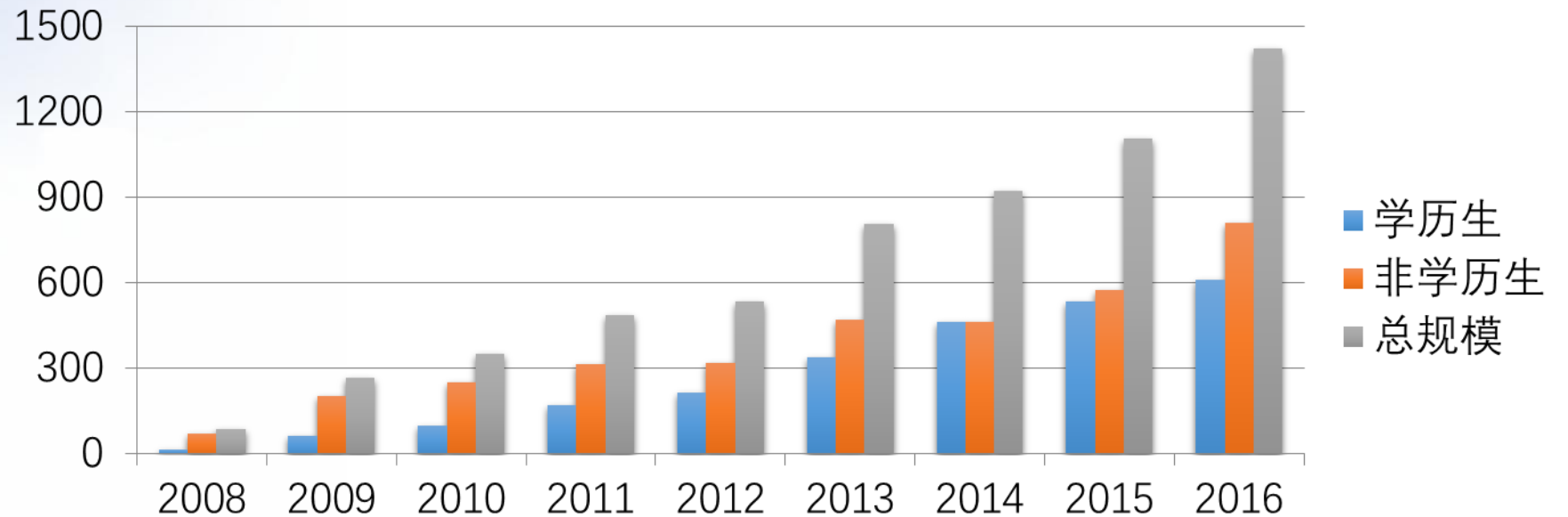
Opening Ceremony in September 2017

MSc. Program in Meteorology since 2015 with Chinese Government Sponsorship.
Another milestone of NUIST' Internationalization its educational excellence .

NUIST ETR | SCALE

Scale of Degree Program Enrolment

Complete intl. student cultivation system raises NUIST to Top 7 in Jiangsu Province.



Number of Intl. Students with NUIST by Year

NUIST ETR | OUTSTANDING TRAINEES

10 Director General (Permanent Representative with WMO)

| 姓名 | 国籍 | 参加培训班名称 |
|---------------------------|--------------|------------------|
| Phetolo Phage | Botswana | 热带气象国际培训班 |
| Bahram Sanaei | Iran | 热带气象国际培训班 |
| Ofa Lehua Fa'anunu | Tonga | 季风气象国际培训班 |
| Ibrahim Khalil Moustafa | Syria | 季风气象国际培训班 |
| Amos Makarau | Zimbabwe | 发展中国家气象行政管理官员研修班 |
| Muzamil Abdelrahman Gadir | Sudan | 发展中国家气象行政管理官员研修班 |
| Jacob Nkomoki | Zambia | 发展中国家气象行政管理官员研修班 |
| Guehi Goroza | Cote D'voire | 非洲国家气象行政管理官员研修班 |
| Franz Uirab | Namibia | 非洲国家气象行政管理官员研修班 |
| Bhaleka Seulall | Guyana | 发展中国家气象行政官员管理研修班 |



Zimbabwe
Amos MAKARAU



Zambia
Jacob NKOMOKI



Namibia
Franz Uirab



Cote D'voire
Guehi Goroza



Guyana
Bhaleka Seulall



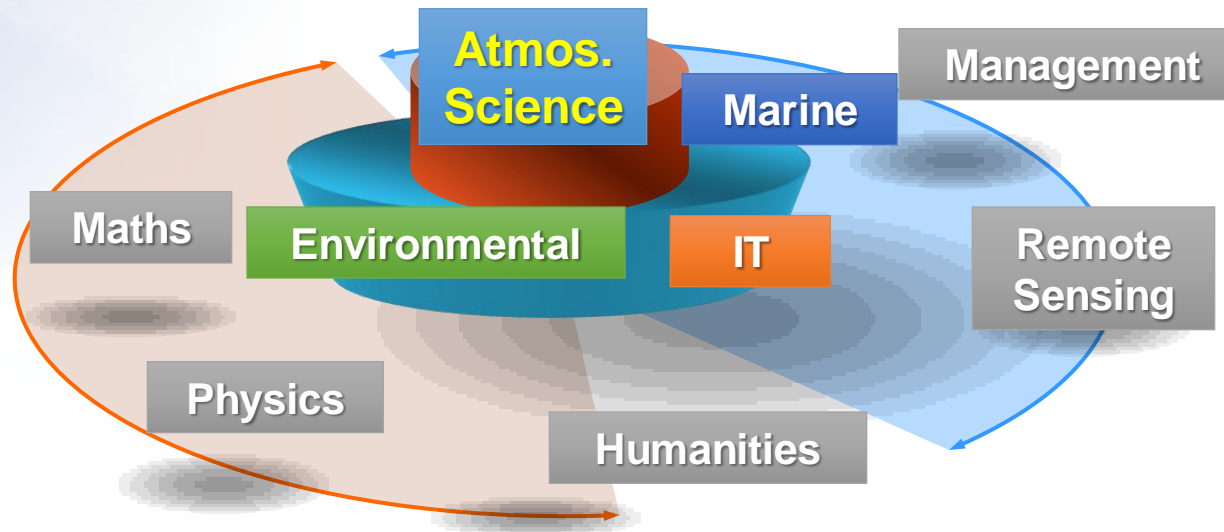
Sudan
Muzamil Abdelrahman
Abdel Gadir



NUIST STRENGTH IN ETR

STRENGTH | DISCIPLINE EXPANSION

Atmospheric science-centered discipline cluster covering marine, environmental, hydrological, information and geographic sciences.



Atmos. Sci.

**NO. 1 in MOE
Evaluation in 2012**

Top ESI 1%

**Geophysics,
Engineering, and
Computer Science.**

Nature Index

**Mainland China-57
Geophysics, and
Environment-34 (World)
-2 (mainland China)**

**Double First-rate
Initiative**

**Key Edu. Strategy
of Chinese Gov't in
2017.**

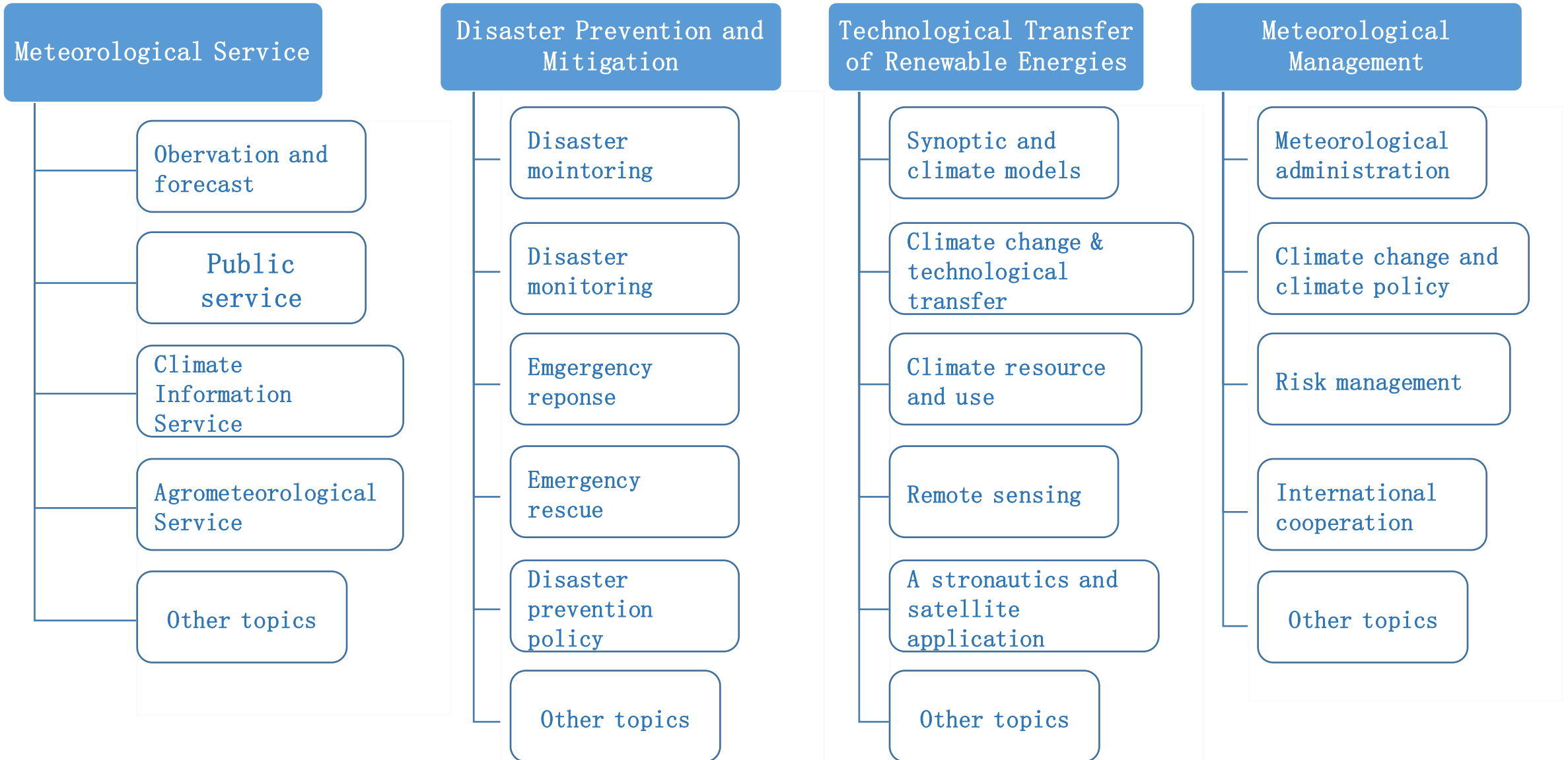
STRENGTH | EVENTS

NUIST strength in degree and non-degree international programs has played as the pillar supporting international training events.



STRENGTH | ETR TOPICS

Training topics cover more than 20 areas including numerical weather predication, tropical cyclone, early warning, prevention and mitigation of meteorological disasters, climate change and climate information service, etc.



STRENGTH | FIELD STUDY CENTERS

NUIST field study resources allocated to service RTC training events 。



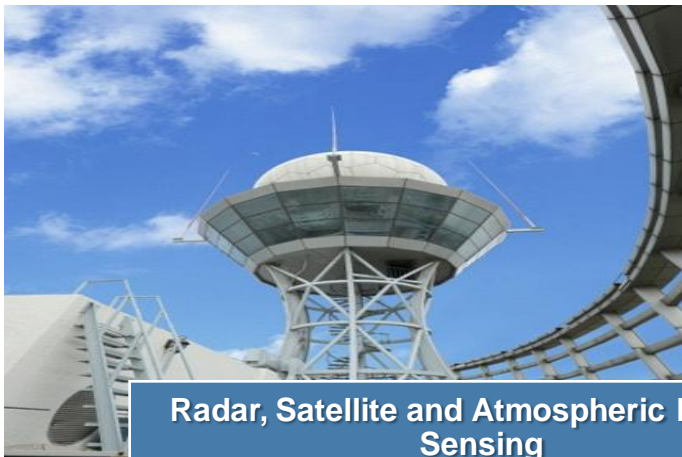
NUIST Observatory (the largest of its kind in an educational institution in the world, and can host real-time consultations with the Central Observatory in Beijing)



CMA-NUIST Observation Center



Meteorological Radar Center



Radar, Satellite and Atmospheric Remote Sensing (Dual-polarization Doppler weather radar)



Applied Meteorology Center (Agro-met Lab)



Weather modification training center

STRENGTH | ACHIEVEMENTS

Targeted at the professionals with NMHS in the developing world.



153 out of the 191 WMO members have been covered.



60 out of the 65 countries along the "*Belt and Road*" Initiative have been covered.

STRENGTH | ACHIEVEMENTS

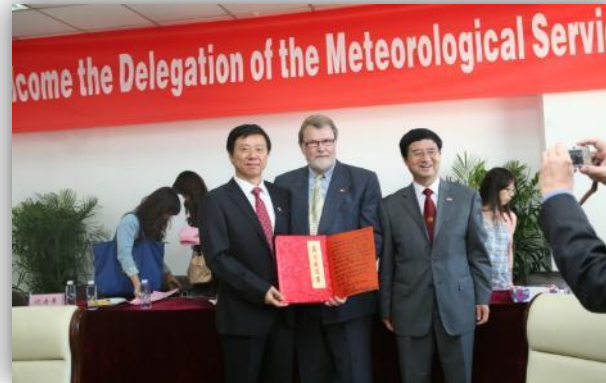
RTC Nanjing is honored to be visited by four successive WMO.



G.O.P. Obasi
Sep.16, 2000



Michel Jarraud
Nov. 2, 2005
Sep. 18, 2006
May 11, 2010



David Grimes
Sep. 15, 2012



Petteri Taalas
Dec.17, 2015

It is a pleasure and honor to visit the Nanjing Meteorological Institute that hosts the WMO Regional Meteorological Training Centre.

Since its inception over 40 years ago the Institute has made tremendous contribution to both national, regional and global meteorology in capacity building - namely training of professional meteorological personnel and contribution to advancement of meteorological knowledge in research and development.

I wish to extend my deepest admiration and congratulations for the major contribution which was properly achieved through the able leadership of the Institute and his senior staff and through their foresight and hard working.

On behalf of the World Meteorological Organization and myself, I wish the Institute continued success and further contribution to global meteorology. WMO is very proud to be associated with the Institute.

G.O.P. OBASI
Secretary General
World Meteorological Organization
16 Sept 2000.

I am very pleased to be invited to visit the Institute of Meteorology and Climatology of the Chinese Academy of Sciences (IMCAS) in Nanjing. The purpose of my visit is to meet with you and your staff and to discuss the possibility of a joint project in the area of meteorology and climate change.

The Institute has been engaged in the field of meteorology and climate change for many years and has made significant contributions to the field. It is a pleasure to be invited to visit the Institute and to meet with you and your staff.

Also, please see the letter and photograph of the Institute.

Michel Jarraud
Secretary General
World Meteorological Organization

Sept 15, 2012

To President Li Lianshu and his staff of professors, a very grateful thank you for your significant contribution to the learning and betterment of meteorologists in China and around the world. Your university is beautiful and your endowment for the future will be significant.

David Grimes
President
World Meteorological Organization

I WOULD LIKE TO THANK YOU FOR YOUR EXCELLENT WORK TO PROMOTE HIGH LEVEL ATMOSPHERIC SCIENCE AND METEOROLOGICAL/HYDROLOGICAL SERVICES IN CHINA AND WORLD-WIDE. I AM LOOKING FORWARD TO VERY CLOSE CO-OPERATION BETWEEN WMO AND NMIC IN THE COMING YEARS!

BEST REGARDS,

PETTERI TAALAS
WMO SE 2016-19

STRENGTH



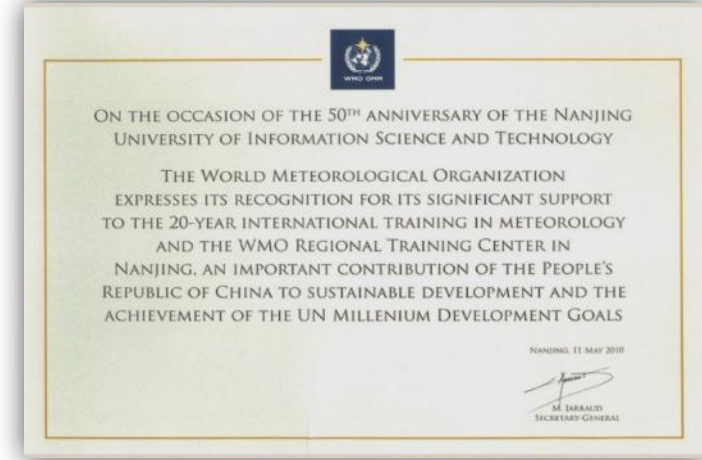
WMO RECOGNITION

On the occasion of the 50th anniversary of the Nanjing University of Information Science and Technology:
The World Meteorological Organization expresses its recognition for its significant support to the 20-year international training in meteorology, and the WMO Regional Training Center in Nanjing, an important contribution of the People's Republic of China to sustainable development and the achievement of the UN millennium Development Goals.

--- Michel Jarraud, WMO SG

I would like to thank NUIST for the excellent work to promote high-level atmospheric science and meteorological/Hydrological sciences in China and world-wide. I am looking forward to very close cooperation between WMO and NUIST in the coming years!

--- Petteri Taalas, WMO SG



A large field of international flags flying in front of a modern building. The flags are arranged in rows on tall poles, and the building is visible in the background. The sky is blue with some clouds.

VISIONS OF WMO-NUIST PARTNERSHIP

VISIONS

To build a global meteorological education alliance.

To support and initiate ranking of meteorological disciplines across the world.

To launch international accreditation system of accreditation for meteorological professionals.





Thanks!

