# **Guo Huadong**

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Guo Huadong is Director-General of the Institute of Remote Sensing and Digital Earth (RADI), Chinese Academy of Sciences (CAS), an Academician of CAS, a Fellow of the Academy of Sciences for the Developing World (TWAS), and an Academician of International Eurasian Academy of Sciences. He presently serves as President of the International Council for Science (ICSU) Committee on Data for Science and Technology (CODATA), Secretary-General of the International Society for Digital Earth (ISDE), and Editor-in-Chief of the International Journal of Digital Earth (IJDE) published by Taylor & Francis.

Prof. Guo Huadong has over thirty years of experience in remote sensing, specializing in radar for Earth observation and remote sensing applications, and involving research on digital Earth since the end of the last century. He has been Principle Investigator for over twenty major national projects or programs in China, and Principle Investigator for seven international radar remote sensing projects. He also serves as Director of the International Center on Space Technologies for Natural and Cultural Heritage under the Auspices of UNESCO. He has published more than three-hundred papers and fifteen books, and is the principal awardee of thirteen national and CAS prizes, one being "National Outstanding Expert", awarded by the State Council of China.

2009	Honorary Doctorate of Science, Curtin University, Australia
1984-1985	Oregon State University, USA. Major: Radar Remote Sensing (Visiting Scholar)
1978 -1981	Graduate University of Chinese Academy of Sciences.
	Major: Cartography and Remote Sensing, M.Sc.
1973 -1977	Department of Geoscience, Nanjing University, China. Major: Geology

## PROFESSIONAL EXPERIENCE

2012–Present Professor, Director-General, Institute of Remote Sensing and Digital Earth, CAS

2009-Present Professor, Director, Key Laboratory of Digital Earth, CAS

2007–2012 Professor, Director-General, Center for Earth Observation and Digital Earth, CAS

2002–2007 Professor, Institute of Remote Sensing Applications, CAS

1997–2002 Professor, Director-General, Institute of Remote Sensing Application, CAS

1997–2001 Professor, Director, National Centre of Geo-informatics, China

1994–2001 Director, Key Laboratory of Remote Sensing Information Sciences, CAS

1988–1997 Professor, Deputy Director-General, Institute of Remote Sensing Applications, CAS

1985–1988 Associate Professor, Institute of Remote Sensing Applications, CAS

## HONORS AND AWARDS

2012 Fellow, The Academy of Sciences for the Developing World

2011 Academician, Chinese Academy of Sciences

2010 National Prize for Progress in Science and Technology (Second Class)

2009 Honorary Doctorate of Science Awarded by Curtin University, Australia

2009 Boon Indrambarya Medal, 30th Asian Conference on Remote Sensing

2009 Beijing Municipal Government Prize for Science and Technology (Third Class)

2006 Academician, International Eurasian Academy of Sciences

2004 Beijing Municipal Government Prize for Science and Technology (First Class)

2004 Manned Space Program Prize for Progress in Science and Technology (Second Class)

2001 Chinese Academy of Sciences Natural Science Award (First Class)

2000 National Outstanding Worker in Science Awarded by the State Council of China

1998 National Prize for Progress in Science and Technology (Second Class)

1997 National Prize for Progress in Science and Technology (Third Class)

1997 Chinese Academy of Sciences Prize for Progress in Science and Technology (Special Class)

1996 Chinese Academy of Sciences Prize for Progress in Science and Technology (Second Class)

1996 Chinese Academy of Sciences Prize for Progress in Science and Technology (Third Class)

1996 National Outstanding Scientist Awarded by the Chinese Government

1994 Chinese Academy of Sciences Prize for Progress in Science and Technology (Third Class)

1992 Outstanding Scientist Awarded by Chinese Academy of Sciences

1991 National Prize for Progress in Science and Technology (Third Class)

1990 Chinese Academy of Sciences Prize for Progress in Science and Technology (First Class)

#### MAIN RESEARCH PROJECTS

- Chief Scientist, Space-based Observations of Global Change-sensitive Factors Mechanisms and Methods, National Basic Research Program of China (973 Program)
- Chief Scientist, Airborne Remote Sensing System, National-level Large-scale Scientific Project
- Project Leader, Comparative Study on Global Environmental Change Using Remote Sensing Technology, Major Program of International Cooperation and Exchanges of the National Natural Science Foundation of China
- Project Leader, SAR Information Integrated Processing and Environmental Parameter Inversion, Key Program of the National Natural Science Foundation of China
- Chair, Global Natural Disaster Mitigation, Inter Academy Panel (IAP)
- Principal Investigator, SIR-C/X-SAR Program (NASA, German and Italian Space Agency). Project Title: SIR-C/X-SAR for Penetration Study
- Principal Investigator, Shuttle Radar Topography Mapping Program (NASA, USA). Project title: Topographic Mapping and Surface Change Monitoring Using SRTM data in China (SENH99-0250-0049)

- Principal Investigator, Advanced Land Observation Satellite (ALOS) program (Japan). Project Title: Study for Land Surface Properties with ALOS PALSAR (ALOS-RA-17)
- Principal Investigator, ERS-1/2 SAR Program (European Space Agency). Project Title: ERS WSC Scatterometer Applications on Environment (ERS-1/2 Experiment Code: AO.RC1 ERS-1/2 SAR Program (European Space Agency)
- Principal Investigator, RADARSAT ADRO Program (Canada). Project Title: Radarsat for Geological Mapping in Test Sites of China (ADRO-214)
- Principal Investigator, ERS-1/2 SAR Program (European Space Agency). Project Title: ERS WSC Scatterometer Applications on Environment (ERS-1/2 Experiment Code: AO.RC101)
- Principal Investigator, GlobeSAR Program (Canada). Project Title: GlobeSAR Data for Geoscience Study
- Principal Investigator, JERS-1 SAR Program (Japan). Project Title: JERS-1 SAR Geological Analysis

## **MEMBERSHIPS AND SOCIETIES**

- 2011–Present Director, International Center on Space Technologies for Natural and Cultural Heritage under the Auspices of UNESCO
- 2010–Present President, Committee on Data for Science and Technology (CODATA), International Council for Science (ICSU)
- 2010–Present Member, Scientific Committee of Integrated Research on Disaster Risk (IRDR), ICSU
- 2010–Present President, Expert Committee, Integrated Research on Disaster Risk China National Committee
- 2009–Present Member, Global Advisory Council, Open Geospatial Consortium
- 2008–Present Member, High-level Panel of Advisers to the Co-Chair of UNGAID and UNGAID e-SDDC
- 2007–Present Editor-in-Chief, International Journal of Digital Earth (IJDE)
- 2007–Present Associate Editor, Journal of Applied Remote Sensing
- 2006–Present Secretary General, International Society for Digital Earth (ISDE)
- 2006-Present President, Chinese National Committee for ISDE
- 2004–2006 Member, Board of Directors, International Association of Global Spatial Data Infrastructure (GSDI)
- 1996–2008 President, Chinese Society of Remote Sensing of Environment
- 1996–2006 Editorial Board Member, Asian Journal of Geoinformatics
- 1996–2002 Executive Editor-in-Chief, Journal of Remote Sensing (In Chinese)
- 1992–2006 Member, International SAR Working Group

#### SELECTED PUBLICATIONS

Michael F. Goodchild, Huadong Guo, Alessandro Annoni, Ling Bian, Kees de Bie, Frederick Campbell, Max Craglia, Manfred Ehlers, John van Genderen,

Davina Jackson, Anthony J. Lewis, Martino Pesaresi, Gábor Remetey-Fül.pp, Richard Simpson, Andrew Skidmore, Changlin Wang, Peter Woodgate, Nextgeneration Digital Earth, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES (PNAS), 2012/109(28)/11088-11094.

- Guo Huadong, Chen Fang, Qiu Yubao, Development of Earth Observation over the Past Half Century and Future Direction, BULLETIN OF CHINESE ACADEMY OF SCIENCES, 2013, Supplementary Issue.
- Guo Huadong, Chen Y, Feng Q, Lin QZ, Wang F, Assessment of damage to buildings and farms during the 2011 M 9.0 earthquake and tsunami in Japan from remote sensing data, CHINESE SCIENCE BULLETIN, Volume: 56 Issue: 20 2011, 2138-2144.
- Huadong GUO and Xinwu LI, Earth observation technique characteristics and application development of new generation SAR, CHINESE SCIENCE BULLETIN, 2011, Vol.15, No.56, pp:1155-1168 (Chinese).
- GUO Huadong, WANG Xinyuan, LI Xinwu, LIU Guang, ZHANG Lu and YAN Shiyong, Yushu earthquake synergic analysis using multimodal SAR datasets, CHINESE SCIENCE BULLETIN, 2010, Vol.55 No.31: 3499–3503.
- Guo Huadong, Ma JW, Zhang B, Li Z, Huang J, Zhu LW, Damage consequence chain mapping after the Wenchuan Earthquake using remotely sensed data, INTERNATIONAL JOURNAL OF REMOTE SENSING, 31(13): 3427-3433 2010.
- Guo Huadong, Zhang B, Lei LP, Zhang L, Chen Y, Spatial distribution and inducement of collapsed buildings in Yushu earthquake based on remote sensing analysis, SCIENCE CHINA-EARTH SCIENCES, 53(6): 794-796 JUN 2010.
- Guo Huadong, Li XW, Zhang L, Study of detecting method with advanced airborne and spaceborne synthetic aperture radar data for collapsed urban buildings from the Wenchuan earthquake, JOURNAL OF APPLIED REMOTE SENSING, 3: Art. No. 031695 Sp. Iss. SI MAY 26, 2009.
- Guo Huadong, X. Fan, C. Wang, A Digital Earth Prototype System: DEPS/ CAS, INTERNATIONAL JOURNAL OF DIGITAL EARTH, 2009, Vol.2. No. 1, pp. 3-15.
- Guo Huadong, Spaceborne and airborne SAR for target detection and flood monitoring, PHOTOGRAMMETRIC ENGINEERING & REMOTE SENSING, 2000, 66(5): 611-617.
- Guo Huadong, Liu Hao, Wang Xinyuan, Shao Yun, Sun Yan, Subsurface old drainage detection and paleoenvironment analysis using spaceborne radar images in Alax Plateau, SCIENCE IN CHINA, Series D: 2000, 43(4): 439-448.
- Guo Huadong, J. Liao, C. L. Wang, C. Wang, T. Farr, D. Evans, Use of Multipolarization Imaging Radar for Volcano Mapping in the Kunlun Mountains of Western China, REMOTE SENSING OF ENVIRONMENT, 1997, 59(2):364-374.
- Guo Huadong, L. Zhu, Y. Shao, X. Lu, Detection of Structural and Lithological Features Underneath a Vegetation Canopy Using SIR-C/X-SAR Data in Zhao Qing Test Site of Southern China, JOURNAL OF GEOPHYSICAL RESEARCH, 101(E10): 1996, 23101-23108.
- Guo Huadong, Spaceborne Radar for Geoscientific Applications in North China, NASA/JPL PROCEEDINGS OF THE THIRD SPACEBORNE IMAGING RADAR SYMPOSIUM, 1993, pp. 417-419.
- Guo Huadong, Y. Zhang, Y. Shao, P. Dong, Geological Analysis Using Shuttle Imaging Radar and Airborne SAR in China, ADVANCE IN SPACE RESEARCH, 1993, Vol. 13, No.11, pp. 79-82, COSPAR, Pergamon Press.
- Guo Huadong, Ji Wu, "Space Science & Technology in China: A Roadmap to 2050", Science Press, Springer, 2010.
- Guo Huadong, "Natural Disaster Mitigation A Scientific and Practical Approach", Science Press, 2009.
- Guo Huadong, "Radar Remote Sensing Applications in China", Taylor & Francis Books Ltd., 2001. Guo Huadong, "Radar for Earth Observation: Theory and Applications", Science Press, 2000.