

Dr. Sundar A. Christopher

Professor, [Department of Atmospheric Sciences](#)

Associate Director, [Earth System Science Center](#)

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CITIZENSHIP : USA

Dr. Christopher received his Ph.D. in atmospheric sciences from Colorado State University. He also holds a Master's degree in Meteorology from South Dakota School of Mines and Technology (SDSMT) and a Master's degree in Industrial/Organizational Psychology from the University of Alabama in Huntsville.

He completed his Ph.D. in 1995 and joined the faculty at SDSMT in the Department of Meteorology. In 1997, he moved to Huntsville and joined the Department of Atmospheric Sciences at UAH as an Assistant Professor. He was promoted to Associate Professor in 2001, was awarded tenure in 2002, and became a Full Professor in 2007. In August 2007, he was appointed as the Associate Director of the Earth System Science Center.

Research interests include satellite remote sensing of clouds and aerosols and their impact on air quality, environment, health, global and regional climate. Dr. Christopher works with numerous satellite data sets, from both polar orbiting and geostationary satellites, ground-based instruments and also aircraft data to study the earth-atmosphere system.

He enjoys teaching and has designed and developed undergraduate and several graduate level courses with special emphasis on hands-on training using satellite data. He has published extensively in national and international peer-reviewed journals and has also presented his work at major scientific conferences.

He has also been invited to speak at major venues including the [World Federation of Scientists](#) (Erice, Sicily), the [United Nations Symposium in 2007 \(Graz, Austria\)](#), the American Association for Aerosol Research, [Australian Meteorological and Oceanographic Society \(AMOS\)](#), the [United Nations Symposium on Space Applications, 2008 \(Graz, Austria\)](#), the Osher Institute of Higher Learning, American Geophysical Union. and various national and international Universities (Indian Institute of Science, Bangalore, India, University of New South Wales, Sydney, Australia).

He has also won several million dollars in numerous grants and contracts from NASA, NOAA and other federal agencies for studying earth-atmosphere processes.

He has won several awards including the University award for Research and Creative Achievement in 2006 and NASA New Investigator Award. He has published more than 70 papers in peer reviewed journals.

He is a citizen of the United States of America.

EDUCATION

Ph.D. (Atmospheric Science): Colorado State University, 1995

M.S. (Atmospheric Science): South Dakota School of Mines and Technology, 1989

B.E (Engineering): P.S.G. College of Technology, India, 1985

M.A. (Industrial/Organizational Psychology), University of Alabama in Huntsville, 2002

PROFESSIONAL EXPERIENCE

2007- : Professor, University of Alabama in Huntsville (UAH)

2007- : Associate Director, [Earth System Science Center](#) (UAH)

2001- 2007: Associate Professor : University of Alabama in Huntsville (UAH)

2004-2005 : Gordon Godfrey Fellow, University of New South Wales, Sydney.

1997-2001 : Assistant Professor : University of Alabama in Huntsville (UAH)

1995-1997 : Assistant Professor : S. Dakota School of Mines and Tech (SDSMT)

1994-1995 : Research Scientist : S. Dakota School of Mines and Tech (SDSMT)

RESEARCH AWARDS

NASA Group achievement award CERES Science algorithms and data products, 2003, 2007.

NASA New Investigator Award, 1996-1999

NASA Fellowship in Global Climate Change Research, 1992-1993

CERES, Group achievement award, 2000

UAH Research and Creative Achievement Award, 2006.

TEACHING AWARDS

Mini grant for developing web based GIS/Remote Sensing tools, UAH.

RESEARCH AREAS

Satellite Remote Sensing, Biomass burning, Aerosols, Air Quality

Aerosol Climate Forcing, Earth radiation budget and Cloud property retrievals.

Employee Motivation and Job Satisfaction

Professional Activities and Affiliations (Current and previous)

Member, Canadian Space Agency, Scientific Study and Evaluation Program.

Member, GOES-R Independent verification and validation

GEWEX Panel member for aerosols.

GEOCAPE Aerosol Science Working Group

Associate Editor - Journal of Applied Meteorology and Climatology, 2007

Expert reviewer, CCSP

Climate Change Science Program (CCSP) working group - Aerosols and Climate

Member, NASA interdisciplinary science team (IDS)

Member, CALIPSO Science Team

Member, Solar Occultation Satellite Science Team (SOSST)

Member, CERES-II Science team

Member, MODIS-II Science team

Member, Global Aerosol Climatology Project Science Team (GACP)
Principal Investigator: SCARAB science team
Member, International ScaRaB science working group (ISSWG)
Member, ERBE -II science team
Member, American Association for Aerosol Research
Member, EOSDIS subsetting Working group
Science Advisor, EOSDIS
Member, American Meteorological Society
Member, American Geophysical Union
Member, University Working Group Langley DAAC
Member, TOMS Science Team.

University

Member, Research Council, 2008-
UAHuntsville [NASULGC](#) representative (Oceans and Atmosphere), 2007-
UAHuntsville Strategic Planning Committee for Research, 2008.
UAHuntsville, Focused hire proposal lead for ATS, 2008
College of Science, Promotion and Tenure committee, 2007, 2008.
Faculty Senate, 1998-2003
University Benefits committee

Key Invited Presentations

2009, Air and Waste Management Presentation, Critical Review
2008, United Nations Symposium on Space Applications
2007, United Nations Symposium on Space Applications
2006, American Association for Aerosol Research
Australian Meteorological and Oceanic Society
American Geophysical Union
American Meteorological Society, Student Professional Development

TEACHING ACTIVITIES ([Click here](#))

Sundar teaches several courses emphasizing hands-on activities using satellite remote sensing data.

Courses include:

- 1) Satellite Remote Sensing I
- 2) Satellite Remote Sensing II
- 3) Physical Climatology
- 4) GIS and Remote Sensing
- 5) Professional Development
- 6) High Resolution Aerosol Remote Sensing
- 7) Data Fusion for Climate and Air Quality Applications.

PUBLICATIONS - [Click here](#)

SERVICE

Sundar is actively involved in service activities at the University (faculty senate,

employment benefits, commencement committees), national (reviewer for several journals, text books & funding agencies, science teams, science panels) and international (science committees) levels.

CONSULTING

Sundar is also involved in consulting activities providing technical expertise related to satellite remote sensing and other related topics.