

# Linda Bailey Hayden, PhD

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# **EDUCATION**

NSF-UFE, ADVANCED COMPUTER NETWORKS 1998, Michigan State University NSF-UFE, COMPUTATIONAL SCIENCE 1993-94, NC Supercomputer Center NSF-UFE, PARALLEL PROCESSING 1992-93, Colgate University, Hamilton, NY PhD, MATHEMATICS/EDUCATION 1988, American University, Washington, DC MS, COMPUTER SCIENCE 1983 Old Dominion University, Norfolk, VA MAT, MATHEMATICS/EDUCATION 1972 University of Cincinnati, Cincinnati, Ohio BS MATHEMATICS/PHYSICS 1970 Virginia State University, Petersburg, VA

### PROFESSIONAL EXPERIENCE

DIRECTOR, Center of Excellence in Remote Sensing Education and Research, ECSU, 2002 - present PROFESSOR OF COMPUTER SCIENCE (tenured), 1980-present, Elizabeth City State University ASSISTANT PROFESSOR OF MATHEMATICS, 1972-76, Kentucky State University ASSISTANT PROFESSOR OF MATHEMATICS, 1977-79, Norfolk State University

# PROFESSIONAL ACTIVITIES

IEEE-USA Board of Directors Professional Achievement Award 2006
External Advisory Board Member, NSF STC Center for Embedded Network Systems - UCLA
NSF President's Award for Excellence in Science, Mathematics, Engineering Mentoring 2003
Emerald Awardee for Educational Leadership by U.S. Black Engineer Magazine 2003
President, IEEE-Geoscience & Remote Sensing Society Eastern North Carolina Chapter
IEEE Geoscience and Remote Sensing Society Minority Travel Program Selection Committee
Expanding Opportunities in Oceanic, Environmental and Atmospheric Science Steering Committee
Educator of the Year Award, National Technical Association 75 Anniversary Conference, Atlanta, GA
Board member, Association of Departments of Computer/Information Sciences and Engineering at
Minority Institutions (ADMI)

Recipient of the First ECSU Chancellor's Award for Distinguished Service to the University, 2002 IEEE-ASEE Fellow, NASA's Langley Research Center, Hampton, VA 1996 Published Interview, "A Winning Formula", American Magazine, Winter 1994, p.15-20 Published Interview, "Success is in the Numbers", Black Issues in Higher Education, May 19, 1994, p. 40-43

Presenter, "Mentoring Minority Students Majoring in Mathematics and Science", 9th International Conference on Technology and Education Paris, France, 1992
Poster Session Chair, ACM/SIGCSE, 1991 Conference, San Antonio, TX

1986 Summer CS Fellow with the Department of the Army, AMC, Alexandria, VA

1985 Summer CS Fellow with the Department of the Army, ATSC TRADDOC, Fort Eustis, VA 1984 Summer CS Fellow with the Central Intelligence Agency, OTS, Langley, VA

## PROFESSIONAL PRESENTATIONS

Organizing online hackathons for newcomers to a scientific community – Lessons learned from two events (WEB)

The Secret Sauce of Science: SGCI (PDF)

Incubator Project: The Social Media Macroscope, (Poster)

Enhancing Interactivity and engagement to the Science Gateway Community Institute Workforce Development Site, (Poster)

First Iteration of SGCI Internships and Coding Institute, (Poster)

Mentoring the Next Generation of Science Gateway Developers and Users, AGU 2016

NASA Hyperwall and Remote Sensing Outreach in Japan, IEEE Geoscience and Remote Sensing Magazine, June 2020

GLOBE: Connecting You to an International Community of Observers and Directly to NASA Satellites, IEEE Geoscience and Remote Sensing Magazine, March 2019Judy Qiu, Supun Kamburugamuve, Hyungro Lee, Jerome Mitchell, Rebecca Caldwell, Gina Bullock, Linda Hayden, Teaching, Learning and Collaborating through Cloud Computing Online Classes, Supercomputing Conference, 2017, Denver Colorado.

Hayden, Linda Bailey, GLOBE Data Entry App Version 1.3 Now Available to GLOBE Community! Create and Edit Sites Without Active Internet Connection!, IEEE Geoscience and Remote Sensing Society Magazine, Fall 2017.

Gesing, S., Wilkins-Diehr, N., Dahan, M., Lawrence, K., Zentner, M., Pierce, M., Hayden, L.B., and Marru, S. (accepted) Science Gateways: The Long Road to the Birth of an Institute HICSS-50 (50th Hawaii International Conference on System Sciences), 4-7 January 2017, Hilton Waikoloa, HI, USA

Hayden, L., Promoting Diversity in Science, published in Polar Field Services, http://polarfield.com/blog/promoting-diversity-in-science/, November 2013

Hayden, L., Hughes, T., Johnson, D., Remote Sensing of Ice Sheets for Underrepresented and Handicapped Middle School Students, IEEE-IGARSS Conference, Barcelona, Spain, July 2007

Hayden, L., Braaten, D., Development of Educational Partnerships Dedicated to Remote Sensing of Ice Sheets Cyberinfrastructure, IEEE-IGARSS Conference, Barcelona, Spain, July 2007

Hayden, L., Fox, G., Gogineni, P., Cyberinfrastructure for Remote Sensing of Ice Sheet" POLARGRID Conference, Madison, WI, June 4-8, 2007

Hayden, L, Omar, A., Collaborations Focused on Enhancing Undergraduate Involvement in Remote Sensing Applications to Atmospheric and Earth Science Research, IGARSS Conference, Denver, CO, July 2006

Inspiring the Next Generation of Earth Explorers through Remote Sensing Studies, NASA Earth Science Education Team Meeting, Washington, DC, January 30-Feb 2, 2006

Wake, C., Hayden, L, Building a Model of Research and Education Collaboration Between Minority and Majority Universities, AGU Fall Meeting, San Francisco, 6 Dec 2005

LeCompte, M., Hayden, L. Smith, E., Forde, J., *Historical Observations of Coastal Upwellings along the Northern Beaches of the North Carolina Outer Banks* 8<sup>th</sup> International Conference on Remote Sensing of Coastal and Marine Environments, Nova Scotia Canada May 2005

LeCompte, M., Hayden, L., Rorie, D., Coastal Upwelling Along the Northern Beaches of the North Carolina Coast, IEEE- Geoscience and Remote Sensing Society IGARSS Conference, Seoul, Korea, July 2005

Jearld, A., Hayden, L., Interagency Collaborations with Universities to offer Interdisciplinary Training in Remote Sensing, Ocean and Marine Sciences, IEEE- Geoscience and Remote Sensing Society IGARSS Conference, Seoul, Korea, July 2005

Foss, K., Hayden, L., Fogg, T., Dolphin Presence/Absence Probabilities on the Virginia and North Carolina Coast as Correlated with Sea Surface Temperature and Chlorophyll-a Levels, IEEE-Geoscience and Remote Sensing Society IGARSS Conference, Seoul, Korea, July 2005

Hayden, L., *Broadening Participation in Science and Engineering*, 2005, National Science Foundation HRD/Joint Annual Meeting, April 25- 26, 2005 Washington, DC

Hayden, L., Walter, D., Porter, W., *Identifying an Important Source of Talented Students from Underrepresented Communities Through Effective Partnerships with Minority Serving Institutions*, American Geophysical Union's (AGU) Fall Meeting, December 13–17, 2004 San Francisco

Hayden, L, Harrison-Wilkins, *Mentoring Minority Undergraduates Through Remote Sensing and Geo-Information Science Research*, African Association of Remote Sensing of the Environment (AARSE) 2004 bi-annual conferences, Oct. 18-21, 2004 Nairobi Kenya

Hayden, L. B., You Be The Scientist with Satellite Imagery and the GAIA Crossroads Project, IEEE-IGARSS Proceedings, Anchorage Alaska, September 2004

Hayden, L. Mathematics of The Great Dismal Swamp Product Development for NASA's Educational Product Review, Coalition for Earth Science Education Seventh Annual Meeting, Goddard Space Flight Center, Jan 10-13, 2002

Hayden, L., Seshun A. Remote Sensing Middle School Intervention Program-YBTS, Coalition for Earth

Science Education Seventh Annual Meeting, Goddard Space Flight Center, Jan 10-13, 2002

Hayden, L. B., *The Center of Excellence in Remote Sensing Education and Research (CERSER) Undergraduate Research Experience in Ocean and Marine Science*, IEEE- IGARSS Proceedings, Toulouse, France, July 2003

Hayden, L. B., You Be The Scientist with Satellite Imagery Middle School Enrichment Program in EZ/EC Communities, IEEE- IGARSS Proceedings, Sydney Australia, July 2001

K. Harrison, Hayden L., Correlations of AVHRR Sea Surface Temperature with the Presence of Sea Turtles, IEEE- IGARSS Proceedings, Sydney Australia, July 2001

Hayden, L.B., M. Powers, *The Great Dismal Swamp Ecosystem Earth System Science Academy*, IEEE-IGARSS Proceedings, Honolulu, Hawaii, July 2000

Hayden, L., Celebration of Women in Mathematics for High/Middle School Girls, Science House at NCSU Conference on K-12 Outreach from University Science Departments. Feb 7-9, 2001 Raleigh, NC

Hayden, L, Seshun, A., *Goes Satellite Data GOES to School*, NASA's MU-SPIN 10th Annual Users Conference, Atlanta, GA Sept. 2000

Hayden, L, Powers, M., *The Great Dismal Swamp Earth System Science Academy*, IEEE Geoscience and Remote Sensing IGARSS 2000 Conference Proceedings, Honolulu, Hawaii, July 2000

Seshun, A., Steele, K., Hayden, L., *The Kaleidoscope of Numbers in Satellite Infrared Imagery*, Proceedings of the National Science Teachers Assoc. Conference, St. Louis, MO, Mar. 21-24, 2001

Hayden, L, Atalla, S., *Introductory Physics CBT Training Model for the University of Cairo*, CBT Authoring Meeting, Cairo, Egypt, June 1999

Hayden, L, Saunders, S., Ethernet vs. ATM: *Timing Study of Search and Sort Algorithms*, The National McNair Journal Fall 1996, p 19

Hayden, L., Seaton, J., Brooks, S., *Integration of the Internet into the Secondary School Curriculum*, Guiding Gifted Talent in Science and Technology, Oct. 25-26, 1996, Norfolk State Univ. Norfolk, VA

Hayden, L., Seaton, J. *Implementation of the ATLAS program for Secondary School Connectivity within the ECSU-NRTS*, 6th Annual NASA MU-SPIN Conference, Sept. 18-24, 1996, El Paso, TX

Hayden, L., *Department of Transportation STEP Program Internship Report*, ITS Consortiums Intern and Educational Development Meeting Sept. 20, 1995 Hampton, VA

Hayden, L., *Using Research to Teach Technology to Undergraduates*, NC Academy of Science Conference, 1995

Hayden, L. AND Coleman, Intervention Programs for High Ability Minority Students, NASA-HBCU

Space Science and Engineering Research Forum, 1988

Hayden, L. Symposium Evaluation of the Saturday Academy Program located at The University of the District of Columbia Campus, on Intervention Programs Aimed at Increasing Minority Participation in Mathematics Based Fields, 1988

Hayden, L. and Coleman, W., Successfully Keeping Minority Students in the Math/Science Pipeline TRIO Programs Annual Conference, 1989

Hayden, L., *Evaluating Intervention Programs*, Science, Mathematics, Aeronautics, Research and Technology Interface Group of the National Leadership Roundtable Conference (SMART), 1989

#### **MEMBERSHIP**

IEEE Geoscience and Remote Sensing Society Kappa Mu Epsilon Mathematics Honor Society Beta Kappa Chi Scientific Honor Society Alpha Kappa Alpha Sorority, Inc. Portsmouth Chapter of The LINKS Inc. Trustee Board, Zion Baptist Church, Portsmouth, VA

### SELECTED RESEARCH ACTIVITIES--FUNDED

Co-Principal Investigator, Science Gateways Institute, 2013-2015, \$50,000

Principal Investigator, Arctic and Antarctic REU, 2009-2015, \$1,046,614

Principal Investigator, Army Major Instrumentation, 2014-2015, \$432,518

Principal Investigator, NSF-CI TEAM Cyberinfrastructure for Remote Sensing of Ice Sheets 2006-09, \$675,000

Principal Investigator, NASA-Inspiring the Next Generation of Remote Sensing Explorers 2005-2008, \$560,000

Co-Investigator, NSF STC Center for Remote Sensing of Ice Sheets (Univ. of Kansas Lead) 2005-2014, \$19,000,000

Co-Investigator, NSF Watershed Watch STEP Program (Univ. of New Hampshire Lead) 2005-2010, \$900,000.00

Principal Investigator, NSA Association of Women in Mathematics High School Math Day 1994-09, \$340,000

Principal Investigator, ONR Undergraduate Research Experience in Ocean/Marine Science, 2001-2008, \$450,000

Principal Investigator, NSF- Presidential Award-Excellence in Science, Math and Engineering Mentoring 2003-06, \$29,000

Principal Investigator, Office of Naval Research-AVHRR-SST Coastal Observations 2001-2006, \$1,445,000

Principal Investigator, NOAA Conservation of Protected Species Using Remote Sensing 2003-07, \$249,591

Principal Investigator, Office of Naval Research-Nurturing ECSU Research Talent Program, 1993-2005, \$2,516,000

Principal Investigator, NASA-Network Resources and Training Site, 1995-2005, \$4,000,000

Principal Investigator, NASA Earth Science Education Office-Math of the Great Dismal Swamp, 1999-03, \$305,998

Principal Investigator, NASA Earth Science Education Office- Satellite Imagery in EC/EZ K-12, 1999-03, \$285,000

Principal Investigator, NASA Earth Science Education Office- Earth Science On-Line Courses, 1999-04, \$45,000

Co-Principal Investigator, Dept of Transportation-Expanding Skills & Interest in Transportation 1993-95, \$80,000

Principal Investigator, National Security Office - CBT-Authoring in UNIX DOS and Networks, 1992-95, \$165,900

Principal Investigator, Office of Naval Research - Instrumentation for Educational Use 1995-96, \$297,090

Principal Investigator, Office of Naval Research - Home Institution Support, 1990-94, \$123,400

Principal Investigator, National Security Office, On-Line Manual Research Project, 1991-93, \$74,800

Co-Principal Investigator, Egyptian CBT-Authoring with the University of Cairo, 1997-98, \$50,000

ACM/SIGGRAPH Educators Grant, 1991 and 1994, \$2,000

Principal Investigator, NASA Innovations in Climate Education 2011 – 2014, \$761, 856

Principal Investigator, NSF Polargrid MRI project 2008 – 2011, \$1,000,000

Principal Investigator, NSF Polarscience Research Experiences for Undergraduates 2010 – 2012, \$627,115