

DWIGHT L. WILLIAMS, Ph.D., P. E.

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OVERVIEW

- Visiting Professor, Massachusetts Institute of Technology Department of Nuclear Science and Engineering.
- Director of National Intelligence Fellow -- the highest Intelligence Community award available to scientists.
- Principal Nuclear Physicist within Department of Defense.
- Former National Young Engineer of the Year.

EDUCATION and REGISTRATION

- Ph.D., University of Maryland (UMCP), Nuclear Engineering.
- B.S., M.S., North Carolina State University, Nuclear Engineering.
- Licensed Professional Engineer (P.E.), Commonwealth of Virginia -- a P.E. is needed to sign engineering blueprints.

AWARDS and RECOGNITION

- Dominion Energy Excellence in Leadership Award (announced 2006, to be conferred 2007).
- Director of National Intelligence Fellow -- the highest Intelligence Community award available to scientists (2006).
- National Society of Black Engineers (NSBE) AEDC Humanitarian of the Year (2006).
- National Young Engineer of the Year (2005 - 2006).
- U.S. Department of Defense (DoD) Citation for leadership in federal nuclear technology investigation (2002).
- DoD Honorary Award for nuclear/radiological expertise in support of the U.S. led war on terrorism (2002).
- U.S. Department of Energy (DOE) Citation for leadership in joint DoD/DOE nuclear research (2001).
- Southern Regional Education Board Doctoral Scholars Award (1998 - 2001).
- DOE Environmental Restoration and Waste Management Graduate Fellowship (1993 - 1994).

PROFESSIONAL EXPERIENCE

Massachusetts Institute of Technology (2006 - present), *Martin Luther King Visiting Professor*

- Serve as full professor in Department of Nuclear Science and Engineering.
- Teach undergraduate and graduate level radiation detection courses.

DoD, Science & Technology Brain Trust (2005 - present), *Principal Nuclear Physicist (GS-15)*

- Serve as principal advisor on all nuclear matters (technology, detection systems, etc.).

DoD, Technical Applications Division (TAD) (2004 - 2005), *Chief Engineer/Principal Nuclear Physicist (GS-15)*

- Oversaw all nuclear, biological, chemical, and electrical engineering technology applications within TAD.
- Ensured that state-of-the-art technology developed for use by DoD personnel met operational requirements.

DoD, Rest of World Nuclear Programs Division (2000 - 2004), *Senior Nuclear Engineer (GS-13/14)*

- Served as DoD technical expert regarding nuclear weaponry and electromagnetics.
- Managed complex research activities within DoD, at DOE national laboratories, and internationally.

Defense Threat Reduction Agency, Prototype International Data Center (1996 - 2000), *Nuclear Analyst*

- Analyzed gamma-ray spectra from international monitoring stations to assess radioactivity concentrations.
- Instructed international experts in nuclear science before their tours as United Nations scientists in Vienna, Austria.

TECHNICAL and PROFESSIONAL AFFILIATIONS

- Houston Academics Board of Directors (2006 - present).
- MATHCOUNTS Board of Directors (2006 - present).
- Accreditation Board for Engineering and Technology (ABET) Program Evaluator (2003 - present).
- Coauthor of National Professional Engineering Licensure Examination -- the "P.E. Exam" (1999 - present).
- American Physical Society (2002 - present).
- American Society for Engineering Education (1998 - present).
- National Society of Professional Engineers (1997 - present).
 - Vice President, Maryland Society of Professional Engineers (2006 - present).
- American Nuclear Society (1997 - present).
 - Environmental Sciences Executive Committee (1999 - 2002).
 - Special Committee on Nuclear Non-Proliferation (1999 - 2002).

SPECIAL ACTIVITIES

Technical

- Served on White House senior steering committee to develop national strategy for nuclear research (2005 - 2006).
- Presented two days of nuclear research to Senators and Congressmen on Capitol Hill (2006).
- Worked with DoD to define competencies for civilian and military scientists (2006).
- Instructed at Defense Nuclear Weapons School in Albuquerque, NM (2001 - 2002).
- Visited four Japanese nuclear sites, at request of Japanese scientists, to observe facility improvements (1999).
- Performed atmospheric modeling studies associated with nuclear weapons tests in India and Pakistan (1998).

Non-technical

- Featured in May 2006 EBONY Magazine (2006).
- Served as keynote speaker for National Science Foundation Martin Luther King Day Ceremony (2006).
- Served as keynote speaker for DoD Martin Luther King Day Ceremony (2006).
- Served as UMCP African Americans in Science and Technology Forum panelist (2006).
- Served as professional trainer for National Association of Engineering Student Councils Annual Meeting (2006).
- Served as monthly lecturer at UMCP on technical, professional, and leadership issues (2005).
- Served as keynote speaker for Howard University Annual Engineering Awards Dinner (2005).
- Served as lecturer for City College of New York College of Engineering Lecture Series (2004).

SELECTED CONFERENCES

Advanced Nuclear Detection Development Workshop, Washington, DC, 2/2006 - Presenter.

Title: Nuclear Research and Development Requirements

13th International Conference on Nuclear Engineering, Beijing, China, 5/2005 - Session Chair.

Title: Discriminating Minimal Peaks from Background in Gamma-Ray Spectroscopy

21st Annual Seismic Symposium, Las Vegas, NV, 9/1999 - Presenter.

Title: Medical Industry Interference with CTBT Monitoring of Atmospheric Radionuclides

7th International Conference on Nuclear Engineering, Tokyo, Japan, 4/1999 - Session Chair.

Title: CTBT Monitoring Station Operating Regime Influence on Radionuclide Detection Sensitivity

11th Pacific Basin Nuclear Conference, Alberta, Canada, 5/1998 - Session Chair.

Title: Ultra-Sensitive Environmental Monitoring of Emissions from a Radioisotope Production Facility

SELECTED PUBLICATIONS

Critical Elements of Generic Installations (Critical Elements Handbook), 4/2001.

- Unit 60110: Nuclear Production Reactors
- Unit 60200: Uranium Enrichment

Journal of Health Physics, 2/2001.

Title: Detection of Anthropogenic Radionuclides by the Monitoring System for the Comprehensive Test Ban Treaty

Radionuclide Monitoring Operations Report of the Prototype International Data Center, 9/1999.

Prototype International Data Center Radionuclide and Atmospheric Transport Training Manual, 9/1998.

Journal of Radioanalytical and Nuclear Chemistry, 4/1997.

Title: Airborne Anthropogenic Radioactivity Measurements from an International Radionuclide Monitoring System

Journal of Radioanalytical and Nuclear Chemistry, 4/1997.

Title: Global Radionuclide Monitoring in Near-Real Time for Verification of the Comprehensive Test Ban Treaty

ADDITIONAL INFORMATION ONLINE

- <http://www.washingtonpost.com/wp-dyn/content/article/2005/12/21/AR2005122101143.html> (news article, 2005).
- <http://www.engineeringlicense.com/careers> (biographical profile, 2005).
- <http://www.careercornerstone.org/nuclear/profiles/williams.htm> (interview transcript, 2005).
- http://www.wusatv9.com/news/news_article.aspx?storyid=44529 (news article, 2005).
- <http://www.nspe.org/media/mr7-2005dwilliams.asp> (news article, 2005).
- <http://www.comcastnews.com/media/ComcastLocalEdition/125271.wmv> (news interview video, 2003).