



# BIOGRAPHY



## UNITED STATES AIR FORCE

### DR. MICHAEL J. HAYDUK

Dr. Michael J. Hayduk is the Deputy Director, Information Directorate, Air Force Research Laboratory, Rome, New York. The directorate's mission is to lead the development and integration of Air Force warfighting information technologies for Command, Control, Communications, Computers, Intelligence, and Cyber. Dr. Hayduk plays a key role in overseeing an annual budget of over \$1.8 billion, leading the activities of over 1,200 scientists, engineers, administrative and support personnel.

For the past eight years, Dr. Hayduk was the Chief of the Computing and Communications Division, Air Force Research Laboratory, Information Directorate, Rome, New York. The division's mission is to lead the discovery, development and integration of affordable computing, networking and communications technologies for our air, space and cyberspace forces. Dr. Hayduk was responsible for defining, planning, budgeting, advocating, managing and directing the execution of the research program and leads all aspects of personnel management within the division

Dr. Hayduk joined the Air Force through the Palace Knight educational program in 1991 and was assigned to Rome Laboratory. Upon completion of his graduate studies, he served as a research engineer where he developed ultrafast solid state pulsed lasers for optical communication systems. As a team leader Dr. Hayduk led the development of microwave photonic components and subsystems for use in radio frequency sensors. Dr. Hayduk became the acting Chief for the Electro-Optic Components Branch in 2007 in the AFRL Sensors Directorate which developed components and subsystems for advanced radio frequency and electro-optic AF sensor systems. In 2007 he became the Chief of the Emerging Computing Technology Branch in the AFRL Information Directorate which performs fundamental and exploratory research and development in nanocomputing, quantum computing, computational intelligence and optical computing for advanced computing architectures. Dr. Hayduk has published more than 50 journal and conference papers and holds one US patent.



## **EDUCATION**

1991 Bachelor of Science in Electrical Engineering, Clarkson University, Potsdam, NY  
1993 Master of Science in Electrical Engineering, University of Virginia, Charlottesville, VA  
1997 Doctor of Philosophy in Electrical Engineering, Cornell University, Ithaca, NY  
2008 Air War College (correspondence), Air University, Maxwell AFB, AL

## **ASSIGNMENTS**

1. May 1991 – September 1997 Electronics Engineer, Photonic Components Branch, Rome Laboratory, Griffiss AFB, NY
2. October 1997 – July 2005, Research Engineer, Photonic Technology Branch, Sensors Directorate, Air Force Research Laboratory, Rome, NY
3. July 2005 – February 2007, Acting Chief, Electro-Optic Components Branch, Sensors Directorate, Air Force Research Laboratory, Rome, NY
4. February 2007 – August 2011, Chief, Emerging Computing Technology Branch, Information Directorate, Air Force Research Laboratory, Rome, NY
5. August 2011 – January 2019, Chief, Computing and Communications Division, Air Force Research Laboratory, Rome, NY
6. January 2019 – Present, Deputy Director, Information Directorate, Air Force Research Laboratory, Rome, NY

## **AWARDS AND HONORS**

1996 Achievement Award, Electronic Systems Command  
1997 Science and Technology Achievement Award, Air Force Materiel Command  
2001 Dr. Charles E. Ryan Award for Top Team of the Year, AFRL Sensors Directorate  
2001 Outstanding Paper Award, ISA 47th International Instrumentation Symposium  
2002 Patent of the Year Award, AFRL Sensors Directorate  
2004 Sustained Professional Society Service Award, AFRL Sensors Directorate  
2006 Mohawk Valley Accent on Excellence Award  
2012 Fellow, SPIE – The International Society for Optics and Photonics  
2016 Leadership Mohawk Valley - Follow the Leader

## **PROFESSIONAL MEMBERSHIPS AND ASSOCIATIONS**

Armed Forces Communications and Electronics Association  
International Society for Optical Engineering  
Institute of Electrical and Electronics Engineers  
Eta Kappa Nu, Phi Kappa Phi and Tau Beta Pi Honor Societies

## **PATENTS**

'Photonic Analog-to-Digital Conversion Using Light Absorbers' US patent number 6,326,910

## **PUBLICATIONS**

11 refereed journal and 43 conference proceedings

*(Current as of March 2020)*