

Premkumar B. Saganti, Ph. D.

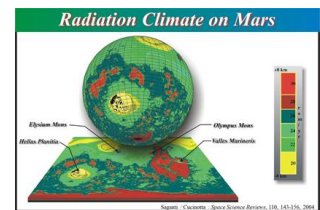
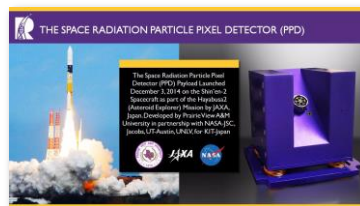
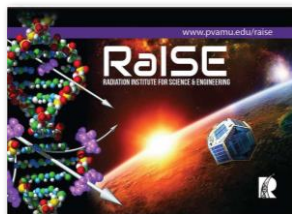
Regents Professor – Texas A&M University (TAMU)
Research Director – Chancellor’s Research Initiative (CRI)
NASA-CARR (Center for Applied Radiation Research) Faculty
Prarie View A&M University (PVAMU)
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As a Texas A&M University Regents Professor, Dr. Saganti’s prominent recent accomplishments at PVAMU (2003–present) through CRI/RaISE (\$ 8M) and DOE/NASA (\$ 8M) include: * Establishment of the first TAMU Chancellor's Research Initiative (CRI) as Radiation Institute for Science and Engineering (RaISE) at PVAMU with state-of-the-art capabilities and unique imaging systems for advanced radiation biology studies with world-class expertise; * Development and launch of two different radiation payloads successfully – (i) on Shinen-2 Spacecraft with a payload (PPD) around the Sun between Venus and Mars Orbits (2014), and (ii) on the Ten-Koh Spacecraft with a payload (SHARP-CPD) for Earth’s Polar Orbit (2018) through JAXA, Japan. Received the highest Japanese Engineering Achievement Award (2016) jointly with Prof. Okuyama of KIT, Japan; * Renovation and Expansion of PVAMU Solar Observatory (2017) listed at # 13 in the World; * Design and construction of a New Observatory Complex (2020) with two piers and custom developed NASA sponsored camera systems and other one of a kind sensor and light calibration systems in the country; * Accomplishment of first NASA-PVAMU Space Act Agreement (2018); * Achievement of national / international collaborative research and partnership (2014-2022) with more than \$ 50 million in-kind support for many CRI / RaISE endeavors at PVAMU.

As a Sr Scientist at NASA Johnson Space Center (1990-2003) through Lockheed Martin - supported more than 50 Space Shuttle missions from MIR through ISS including Hubble Space Telescope repair missions and Space Shuttle Columbia Accident Investigation in 2003. Received several NASA achievement awards and accolades including the prestigious and very rare “Topflight” award from Lockheed Martin in 2003.

Author / Co-Author / Editor of 10 books (including NASA Publications) and more than 300 journal / conference papers with more than 3,000 citations in Textbooks per Google Books. Space radiation studies and visualization accomplishments (radiation damage to DNA and radiation maps of Mars) appeared in several NASA publications including National Geographic, DISCOVER, SCIENCE, NATURE, and SCIENTIFIC REPORTS. Currently serving as Associate Editor for prestigious Astronomy and Radiation Journals. As a Guest Scientist conducted experiments for over 25+ years at national laboratories – Brookhaven National Laboratory (BNL), Los Alamos National Laboratory (LANL), Stanford Linear Accelerator (SLAC), and Heavy Ion Medical Accelerator in Chiba (HIMAC, Japan).

CRI / RaISE PV – Observatory Complex PV – Plasma Laboratory



Professional Background:

Professor and Director, College of Arts and Sciences, Prairie View A&M University, 2016-Present
Regents Professor, Texas A&M University System, Prairie View A&M University, 2015 - Present
Research Director, Chancellor's Research Initiative (CRI) – Radiation Institute for Science and Engineering (RaISE), Prairie View A&M University, Prairie View, TX, 2014-Present
Professor and Coordinator Physics Program, Department of Physics, College of Arts and Sciences, Prairie View A&M University, Prairie View, 2012- 2021
Professor of Physics, Department of Physics, and NASA Research Faculty, NASA Center for Applied Radiation Research, Prairie View A&M University, Prairie View, TX (2008 – Present) Tenured
Associate Professor, Department of Physics, and NASA Research Faculty, NASA Center for Applied Radiation Research, Prairie View A&M University, Prairie View, TX (2003 – 2008) Tenure Track
Sr. Research Scientist, Space Radiation Health Project and Image Science and Analysis Group, NASA Johnson Space Center, Lockheed Martin Space Operations, Houston, TX (1994-2003)
Research Associate and Teaching Fellow, NASA Research Institute for Computing and Information Systems, University of Houston-Clear Lake, Houston, TX (1989-1994)
Adjunct Professor in Physics and Chemistry, Teaching Astronomy Classes (UG) – University of St. Thomas, Houston, TX (2008 – Present)
Adjunct Professor in Computer Science, Adjunct Professor in Computer Engineering, and Specialist in Image Processing - Robotics Research, University of Houston-Clear Lake, Houston, TX (1993 – Present)

Education:

B. Sc. [*Physics & Mathematics*] Andhra Christian College, Nagarjuna University, 1982
M. Sc. [*Nuclear Physics*] Andhra University, Waltair, India, 1986
M. S. [*Electro Optics*] University of Houston-Clear Lake, Texas, 1991
(*Prof. Houston-UHCL, Dr. Pitts-NASA-JSC, and Prof. Babaian-UTMDACC*)
Ph. D. [*Physics*] Andhra University, Waltair, India, 1994
(*Nuclear Structure: Prof. RD Ratnaraju and Prof. KT Hecht, U of Michigan, Ann Arbor*)
Columbia University, Irvington, NY: Microdosimetry for Radiation Biology Research at the Radiological Research Accelerator Facility (RARAF) (2016)
Harvard University, Boston, MA: Harvard School of Public Health – Executive Radiation Safety Officer (RSO) for Laboratory Professionals, Training and Certification (2015)
Harvard University, Boston, MA: Harvard School of Public Health – Radiological Emergency Planning: Terrorism, Security, and Communication, Training and Certification (2014)
ICTP, Trieste, Italy – Abdus Salam International Centre for Theoretical Physics and American Physical Society (APS) AIP Industrial Physics Forum (2012)
Stanford University, Stanford, CA: National Light Source – Stanford Linear Accelerator Center (SLAC), Training in Advanced Light Sources (2011)
University of California, Berkeley: National Light Source – UC Berkeley – Training and Research for Molecular Modeling and Imaging (2011)
Oxford University, Oxford, UK – Invitee for Oxford Round Table – Teaching with Mentorship in Sciences, International Partnership for next Generation STEM Programs (2008)
University of Southern California – Computing Cluster Development and Training for Department of Defense Applications, University of Southern California (2007)
Los Alamos National Laboratory, Los Alamos, NM – Guest Scientist: Weapons Neutron Research (WNR) of Los Alamos Neutron Science Center (LANSCE), (2004 – Present)
Brookhaven National Laboratory, Upton, NY – Guest Scientist: NASA Space Radiation Laboratory, Training and User Certification (2001 – Present)
Argon National Laboratory, Argon, IL, RESRAD Family of Computer Codes Training and Evaluation for Radiation Assessment and Disbursement (2017)

Relevant Awards and Significant Recognitions

- 2023: Principal Scientist – Space Payload on a Lunar Lander – Undisclosed and Unannounced for 2026
- 2020: Principal Scientist – Space Payload to Lunar Orbit on Ten-Koh-3 by JAXA, Japan in 2024
- 2019: Principal Scientist – Prairie View Observatory Complex – New Pier Design and Construction
- 2018: Principal Scientist – Space Payload Development launch on Ten-Koh of KIT by JAXA, Japan
- 2017: Albert Nelson Marquis Lifetime Achievement Award, the Marquis Who's Who Publication
- 2016: Highest Recognition by the Japanese Engineering Society for Shinen2 Radiation Payload
- 2015: Regents Professor – Texas A&M University, Highest Recognition of the TAMU System
- 2014: Principal Scientist - Space Payload Launch on Shinen2 of KIT by JAXA, Japan
- 2012: Chancellor's Research Initiative (CRI) First Award to Prairie View A&M University as a PI: CRI-RaISE (Radiation Institute for Science and Engineering)
- 2010: Award of Honor recognizing Chancellor's Teaching Excellence Award – TAMU / PVAMU
- 2010: Chancellor's Teaching Excellence Award (Chancellor, Texas A&M University System)
- 2009: Chancellor's Teaching Excellence Award (Chancellor, Texas A&M University System)
- 2008: Oxford Round Table invitee and presenter at St Anne's and Rhodes House, Oxford, UK
- 2007: Outstanding Teacher in Physics, College of Arts & Sciences, Prairie View A&M University
- 2007: NASA VIP Invitee for Space Shuttle Launch (STS-118) live observation at NASA-KSC (7th August) – Department of Education, NASA-HQ
- 2006: State of Texas Service Award (15 yrs) by President Wright of Prairie View A&M University
- 2006: For sustained research funding, international conferences, and novel research collaborations – department of physics, Prairie View A&M University, TX
- 2004: NASA Special Recognition - Space Science Education and Public Outreach. For contribution to the public outreach material on the space radiation environment at Mars, NASA-HQ
- 2003: Space Flight Special Team Award for Image Analysis Support of the Columbia Accident Investigation, Space and Life Sciences Directorate, NASA-JSC, June 2003.
- 2003: Top-Flight Award – Lockheed Martin: For the support of the Columbia investigation work with the Image Science and Analysis Group, June 2003.
- 2003: Recognition – in the SCIENCE on-line (April 2003) for the radiation damage to DNA illustration and the space radiation studies
- 2002: Recognition - Mars Radiation Model visualization pictures appeared in DISCOVER magazine (05/2002) and as Cover Pictures of NASA-JPL website (03/2002)
- 2001: Special Space Flight Achievement Award for Radiation Risk Factors Team, Space and Life Sciences Directorate, NASA Johnson Space Center, November 2001.
- 2001: Recognition - in the National Geographic January 2001 issue for the contribution of space radiation effects related data and graphics.
- 1999: Lightning Award – Lockheed Martin: Special recognition for innovative work for providing the Space Shuttle Image Analysis reports on-line in a short time.
- 1998: Phase-I Shuttle-Mir Program Commemorative Certificate - NASA Johnson Space Center.
- 1998: Group Achievement Award of Recognition - NASA Johnson Space Center for the support of the DTO-1118 of the Shuttle/Mir Program (PI - Mir Window Survey for ISS Advancemnet).
- 1997: Going an Extra Mile (GEM) award of recognition for supporting the Hubble Space Telescope, Service Mission-2, NASA Johnson Space Center.
- 1995: Best Thesis Award (doctoral degree) - Gold Medal of Honor: Andhra University, Waltair, India
- 1995: Highest honor of recognition for best research contribution - Gold Medal of Honor: Department of Physics, Andhra University, Waltair, India
- 1995: Group Achievement Award of Recognition – NASA-JSC (First Shuttle-Mir work on STS-63)
- 1994 and 1993: Directors Merit Award, RICIS, University of Houston-Clear Lake, Houston, Texas
- 1986: Highest Distinction in Radiation Physics for M.Sc. graduate course work, Department of Nuclear Physics, Andhra University, Waltair, India