

Issam Mudawar: Honors and Awards

- Physical Sciences Panel Member, Congressionally requested National Academies Decadal Survey on Life and Physical Sciences for 2023-2032 NASA-sponsored space research, 2021.
- 2021 ASME Allan Kraus Thermal Management Medal.
- Most Accessed Article in 2020, ASME Journal of Thermal Science and Engineering Applications: I. Mudawar, "Recent Advances in High-Flux, Two-Phase Thermal Management," Vol. 5, 021012 (2013).
- Life Fellow of the American Society of Mechanical Engineers (ASME), 2020.
- Author of four "Most Downloaded International Journal of Heat Mass Transfer Articles" in 2020.
- Most Accessed Article in 2019, ASME Journal of Thermal Science and Engineering Applications: I. Mudawar, "Recent Advances in High-Flux, Two-Phase Thermal Management," Vol. 5, 021012 (2013).
- Certificate of recognition and celebration of 35 years of service and contributions to Purdue University, 2019.
- American Institute of Aeronautics and Astronautics (AIAA) Space Processing Award, presented biennially, "recognizing decades of research and advances in fluid-based heat transfer in aerospace applications, including the Flow Boiling and Condensation Experiment for the ISS," 2019.
- Member, EU Academy of Sciences (EUAS), 2019.
- List of 150 Most Cited Scholars in Energy Research, Elsevier Scopus Data, 2016.
- Included in the Thomson Reuters list of "The World's Most Influential Scientific Minds 2015."
- The Betty Ruth and Milton B. Hollander Family Professor of Mechanical Engineering, 2015.
- Thomson Reuters Highly Cited Researcher, 2015.
- "Professor Issam Mudawar on his 60th Birthday," article co-authored by leading heat transfer researchers and former students, International Journal of Heat and Mass Transfer, Vol. 89, pp. A1-A3, 2015.
- Keynote Speaker, "Criteria for Negating Influence of Gravity on Flow Boiling Critical Heat Flux in Space Systems," 9th International Conference on Two-Phase Systems for Space and Ground Applications, Baltimore, MD, September 22-26, 2014.
- 2013 American Society for Gravitational and Space Research (ASGSR) Founder's Award. This award is "the highest honor given by ASGSR to a member of the Society for distinguished scientific contributions to and leadership in the field of gravitational research."

- 2013 Heat Transfer Memorial Award in Science Category “for pioneering theoretical and experimental research on phase change mechanisms and applications in energy, materials processing, aerospace propulsion and thermal management, and electronics cooling,” American Society of Mechanical Engineers (ASME) Heat Transfer Division (HTD).
- 75th Anniversary Medal of the American Society of Mechanical Engineers (ASME) Heat Transfer Division (HTD), 2013.
- Invited paper, “Recent Advances in High-Flux, Two-Phase Thermal Management,” special issue celebrating 75th anniversary of the establishment of the ASME Heat Transfer Division, ASME Journal of Thermal Science and Engineering Applications, Vol. 5, pp. 021012-1-15, 2013.
- Faculty Entrepreneurs Innovators Hall of Fame Award, Purdue Office of Technology Commercialization, 2012-2013.
- Certificate of Recognition in testimony of distinguished achievement of research in thermal engineering and service to engineering profession, The Japanese Society of Mechanical Engineers (JSME) and the American Society of Mechanical Engineers (ASME), 2011.
- Keynote Speaker, "Two-Phase Micro-Channel Heat Sinks: Theory, Applications and Limitations," ASME/JSME 2011 8th Thermal Engineering Joint Conference, Honolulu, Hawaii, March 2011.
- Certificate of Recognition for 25 years of sustained contributions to the advancement of the arts, sciences and technology of aeronautics and astronautics, American Institute of Aeronautics and Astronautics (AIAA).
- Certificate of Recognition for 25 years of Service, American Society of Mechanical Engineers (ASME).
- Certificate of Recognition, Department of the Navy, Office of Naval Research, Small Business Innovation Program, June 7, 2010.
- The most cited article for the years 2005-2008, International Journal of Heat and Mass Transfer, for the paper “Two-Phase Flow in High-Heat-Flux Micro-Channel Heat Sink for Refrigeration Cooling Applications: Part I – Pressure Drop Characteristics,” by J. Lee and I. Mudawar, Vol. 48, pp. 928-940, 2005.
- The second most cited article for the years 2005-2008, International Journal of Heat and Mass Transfer, for the paper “Two-Phase Flow in High-Heat-Flux Micro-Channel Heat Sink for Refrigeration Cooling Applications: Part I – Heat Transfer Characteristics,” by J. Lee and I. Mudawar, Vol. 48, pp. 941-955, 2005.
- Rolls-Royce Milestone Award for design of air-to-fuel heat exchanger for high Mach aircraft turbine engines, LibertyWorks, North American Technologies operations of Rolls-Royce, February 2009.
- Best Paper Award in Thermal Management, for the paper “Single-Phase and Two-Phase Hybrid Cooling Schemes for High-Heat-Flux Thermal

Management of Defense Electronics,” by M. Sung and I. Mudawar, 11th Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems (ITherm 2008), Orlando, FL, May 28-31, 2008.

- One of most cited articles for the years 2002-2005, International Journal of Heat and Mass Transfer, for the paper “Experimental and Numerical Study of Pressure Drop and Heat Transfer in a Single-phase Micro-channel heat Sink,” by W. Qu and I. Mudawar, Vol. 45, pp. 2549-2565, 2002.
- Top 1% citation in research field, for the paper “Experimental and Numerical Study of Pressure Drop and Heat Transfer in a Single-Phase Micro-Channel Heat Sink,” by W. Qu and I. Mudawar, International Journal of Heat and Mass Transfer, Vol. 46, pp. 2737-2753, 2003. Compiled by Essential Science Indicators, Thomson Publishing, 2005.
- Top 1% citation in research field, for the paper “Flow Boiling Heat Transfer in Two-Phase Micro-Channel Heat Sinks – I. Experimental Investigation and Assessment of Correlation Methods,” by W. Qu and I. Mudawar, International Journal of Heat and Mass Transfer, Vol. 46, pp. 2755-2771, 2003. Compiled by Essential Science Indicators, Thomson Publishing, 2005.
- The Solberg Award for Best Teacher in the School of Mechanical Engineering, 2003-2004.
- Recognition plaque, Space and Missile Defense Conference and Expo, Huntsville, Alabama, August 2003
- Recognition plaque, SBIR Pavilion 5th Space and Missile Defense Conference, Huntsville, Alabama, August 2002.
- Citation of Appreciation for Contribution to ITherm 2002: International Conference on Thermal, Mechanics and Thermomechanical Phenomena in Electronic Systems, IEEE CPMT Society, 2002.
- Keynote Speaker, "Assessment of High-Heat-Flux Thermal Management Schemes," I-Therm 2000: International Conference on Thermal, Mechanics and Thermomechanical Phenomena in Electronic Systems, Joint IEEE, ASME, CPMT, IMAPS, NIST conference, Las Vegas, Nevada, May 2000.
- Invited Speaker, “High-Heat-Flux Liquid Cooling Schemes,” Manufacturing Test Research Symposium 2000, Intel Corp., Hillsboro, Oregon, August 24, 2000.
- Who’s Who in the World, 2000-present.
- The Ruth and Joel Spira Award for “outstanding contributions to the School of Mechanical Engineering and its students,” 1999.
- Inaugural member of the Purdue University Book of Great Teachers for lasting tribute to those 200 teachers "who have defined Purdue teaching excellence since the institution's birth," 1999.

- Citation for Excellence in Teaching, School of Mechanical Engineering, 1997-1998
- Founding Fellow of The Purdue University Teaching Academy, 1997.
- Fellow of the American Society of Mechanical Engineers (ASME), 1997.
- The Purdue University Charles Murphy Award for Outstanding Teaching, 1996-1997.
- Citation for Excellence in Teaching, School of Mechanical Engineering, 1996-1997.
- Certificate of Appreciation, Heat Treating Society, ASM International, for the presentation "Investigation of Droplet Heat Transfer and Spray Quenching," 2nd International Conference on Quenching and the Control of Distortion, Cleveland, 1996.
- The Solberg Award for Best Teacher in the School of Mechanical Engineering, 1995-1996.
- Citation for Excellence in Teaching, School of Mechanical Engineering, 1995-1996.
- Keynote Speaker, "High-Flux Thermal Management of Avionics," 31st AIChE-ASME-ANS-AIAA National Heat Transfer Conference, Houston, Texas, August 1996.
- Who's Who in Science and Engineering, 1996-present.
- Outstanding Paper Award for 1995, The ASME Journal of Electronic Packaging, for the paper "Two-Phase Electronic Cooling using Mini-Channel and Micro-Channel Heat Sinks: Parts 1 and 2," Vol. 116, 1994.
- Nominee for State of Indiana Award for SBIR Innovation, 1995.
- Citation for Excellence in Teaching, School of Mechanical Engineering, 1994-1995.
- Certificate of Appreciation, International Society for Hybrid Microelectronics, 1994.
- Citation for Excellence in Teaching, School of Mechanical Engineering, 1992-1993.
- Best Paper in Thermal Management, 1992 ASME/JSME Joint Conference on Electronic Packaging, Milpitas, California, for the paper "Enhancement of Single-Phase Heat Transfer and Critical Heat Flux from an Ultra-High-Flux Simulated Microelectronic Heat Source to a Rectangular Impinging Jet of Dielectric Liquid".
- Keynote Speaker, "Direct-Immersion Cooling for High Power Electronic Chips," I-Therm II: Intersociety Conference on Thermal Phenomena in Electronic Systems, Austin, Texas, February 1992.
- Who's Who in the Mid West, 1992-present.

- Citation for Excellence in Teaching, School of Mechanical Engineering, 1991-1992.
- The Solberg Award for Best Teacher in the School of Mechanical Engineering, 1991-1992.
- Best Paper in Electronic Cooling, ASME/AIChE/ANS National Heat Transfer Conference, for the paper "Microelectronic Cooling by Enhanced Pool Boiling of a Dielectric Fluorocarbon Liquid", Houston, Texas, 1988.
- Certificate of appreciation in recognition of support to minority engineering students and programs at Purdue University, awarded by the Purdue Chapter of the National Society of Black Engineers, 1987-1988.
- Professor of the Year Award, Purdue Chapter of the National Society of Black Engineers, 1986-1987.
- The Solberg Award for Best Teacher in the School of Mechanical Engineering, 1986-1987.
- Professor of the Year Award, Purdue Chapter of the National Society of Black Engineers, 1984-1985.