



Professor Michael Shur

Foreign Member of the Lithuanian Academy of Sciences since 2009

Michael Shur is an American physicist, professor at Rensselaer Polytechnic Institute.

Professor M. Shur was born on November 13, 1942 in Kamensk-Uralsky, Sverdlovsk, USSR. He received his master's degree in Electrical Engineering from St. Petersburg Electrotechnical Institute. In 1967 he received his PhD in physics from the A. F. Ioffe Institute in Petersburg, Russia.

Research

M. Shur has held research or faculty positions at the A. F. Ioffe Institute, Wayne State University, Oakland University, Cornell University, IBM T.J. Watson Research Center, and the University of Minnesota. From 1989 to 1996, he was the John Money Professor at the University of Virginia, where he served as the director of the Applied Electrophysics Laboratories in 1996. He moved to Rensselaer Polytechnic Institute in 1996.

Professor M. Shur has led many research efforts in diverse fields related to semiconductor devices, solid-state physics, and engineering, such as plasma wave electronics, thin film transistors, laser technology, sub micrometer field effect transistors, terahertz technology, Surface Acoustic and Acousto-Optic devices.

Shur has authored over 1,000 technical publications; given more than 300 plenary, keynote, and invited talks and conference presentations; authored, co-authored, or edited 38 books and 29 book chapters and holds 33 patents on solid-state devices.

Current Membership in Professional Societies

National Academy of Inventors (Fellow), Lithuanian Academy of Sciences (Foreign Member), Optical Society of America (Fellow), MRS (Fellow), IET (Fellow), IEEE (Life Fellow), American Physical Society (Life Fellow); Electrochemical Society (Fellow), SPIE (Fellow and Life member), World Innovation Foundation (Fellow), AAAS (Fellow), Electron Device Society; Microwave Theory and Technique Society (Life Member), Eta Kappa Nu; Tau Beta Pi; Sigma Xi (Life Member), ASEE, Electromagnetic Academy (Fellow), US Commission D, International Union of Radio Science (elected), USNC Member-at-Large (elected 2000-2003), International Network for

Engineering Education and Research (iNEER), Humboldt Society (Life Member), EuMA Associate member, Humboldt Society of America (life member) Albert Nelson Marquis Lifetime Achievement Award (2017)

Honors and Awards

William H. Wiley 1866 Distinguished Faculty Award. (2017) Rensselaer Outstanding Engineering Professor Award (2017) Fellow, National Academy of Inventors (2016) Distinguished Faculty Naval Research Fellowship (2016) M. Shur, Distinguished Lecturer Award, IEEE Sensors Council (2016-2018) I. Gaska and M. Shur. Winning Poster at 2016 DOE Solid State Lighting Workshop Institute of Electronic Technology Achievement Medal (2015) ECS Electronic and Photonics award (2015) Best Poster Paper Award, Future Trends in Microelectronics 2015 University of Vilnius Honorary Doctorate 2015 2014 Highlight Collection selection by Semiconductor Science and Technology (IOP Publishing) O. Perez, A. Liu, and M. Shur, 3d place Greenovate NYS, April (2014) Jefferson Science Fellow (2013) 2012 Recognition Award from iNEER for Sustained Joint Collaboration Resulting in Innovations in Distance Learning for Engineering Education Tibbetts Award from USA SBA for technology commercialization (2012) Winner of 50th Anniversary of the laser essay contest of Melles Griot (2010) Foreign Member of the Lithuanian Academy of Sciences (2009) Paper of the Month designation, Electronics Letters, November of 2008 The IEEE Sensors Council 2008 Technical Achievement Award (2008) Best Reliability Paper Award at the 26th MIEL 2008 IEEE Donald Fink Best Paper Award (2007) IEEE Leon K. Kirchmayer Graduate Teaching Award (2007) Pioneer Award from Semiconductor Semi (2003) RPI School of Engineering Research Award (2003) Humboldt Senior Research Prize (2002) WOFE-02 two Best Poster Awards (2002) Highly Cited Researcher Commendation (from ISI International) 2000 1999 Materials Research Society Best Poster Award 1999 van der Ziel Award from ISDRS99 Commendation for excellence in Technical Communications from Laser Focus World (1999) Outstanding paper award from GOMAC'98 (1998) Honorary Doctorate, St. Petersburg State Technical University (1994) Prizes for the best papers of A. F. Ioffe Institute: 1968-1973 Gold Medal of the Russian Ministry of Education, 1959

Important Publications and Presentations from the Past 5 Years:

M. Shur and A. Liu, Flash lighting with optimized power-distribution, US Patent 9,894,728 February 13, 2018

K L Koshelev, V Y Kachorovskii, M Titov, M S. Shur Plasmonic Shock waves and solitons in a nanoring.-Phys. Rev. B 95, 035418 (2017)

M. Shur, Physics of Ultrahigh Speed Electronic Devices, IEDM Technical Digest, pp. 29.4.1-29.4.4, IEDM16-719 (2016)

(Invited) M. Shur (Invited) Physics of GaN High Electron Mobility Transistors ECS Trans. 2016 75(12): 69-76; Published 23 September 2016

V. Rozhansky, V. Yu. Kachorovskii, and M. S. Shur, Helicity-Driven Ratchet Effect Enhanced by Plasmons, Phys. Rev. Lett. 114, 246601, 15 June 2015

The information is based on a personal file.

Photo – <https://www.ecse.rpi.edu/~shur/>

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