



EMP and HPEM FELLOWS

September 2018

Name	Date of Election	Citation
Abdalla, Michael D.	July 7, 2010	For the development of high power hyperband and mesoband sources
Abercrombie, Stanley D.	May 18, 1988	For contributions to EMP environmental measurements, beginning in the 1950's
Agee, Forrest Jack	July 13, 2016	For contributions to protection from EMP environments and the development of HPM sources
Antinone, Robert J.	June 5, 2002	For the development of HPRF assessment and hardening techniques
Arnesen, Odd Harry	July 13, 2016	For contributions to the protection of critical technical infrastructures against Intentional EMI threats
Aurand, John	July 23, 2008	For contributions to high-precision measurements in high-power electromagnetics
Bäckström, Mats	June 5, 2002	For development of HPM test techniques and facilities
Baker, George H.	July 22, 1992	For contributions to EMP generation and hardening technology, for development of standards and specifications, and management of R&D programs
Barnes, Paul R.	July 22, 1992	For contributions to EMP analysis and development of the test and protection methods for commercial power systems
Benford, James N.	June 18, 1998	For development of HPM sources
Bhattacharya, Amitabha	July 13, 2016	For contributions to microwave engineering and ground penetrating radars

Name	Date of Election	Citation
Bigelow, W. Scott	July 30, 2014	For the development of UWB antennas and HPM sources
Bohl, Jürgen	June 5, 2002	For determining the electromagnetic susceptibility of missile systems
Bombardt, John N.	May 18, 1988	For contributions to the development of EMP technology for Army systems
Bowen, Leland	July 23, 2008	For experimental development of ultra-wideband antennas and measurement systems
Butler, Chalmers M.	July 14, 2004	For fundamental work in integral equation analysis of EMP and field penetration through apertures
Carron, Neal A.	June 5, 2002	For the development for innovative techniques for the calculation of SGEMP environments
Carter, Nigel J.	June 18, 1998	For development of innovative hardening and testing techniques for EMP, lightning and HPM
Casey, Kendall F.	May 18, 1988	For contributions to the understanding of EMP interaction
Castillo, J. Phillip	May 18, 1988	For contributions to the development of EMP system testing and assessment
Chen, Kenneth C.	June 1, 2000	For the development of models for calculating the coupling to long cables
Christophe, Florent	July 4, 2012	For leadership of HPM innovative projects and international working groups
Darrah, John H.	May 18, 1988	For contributions to the development of EMP technology in the areas of system hardening, simulation and testing
Degauque, Pierre	June 2, 1994	For contributions to modeling of EM fields radiated by lightning and to analysis of EM field interaction with and protection of systems
Dracott, E. Dennis	May 18, 1988	For contributions to the understanding of EMP generation culminating in the development of codes for the air burst
Ehlen, Tilo	July 30, 2014	For contributions to the determination and analysis of HPEM susceptibility of electronic systems
Erkkila, John H.	June 1, 2000	For the development of codes to calculate high-altitude EMP
Farr, Everett G.	June 1, 2000	For theoretical design and experimental development of impulse radiating antennas
Fichte, Lars Ole	July 13, 2016	For contributions to the simulation of high-power electromagnetic interaction with electric devices and biological tissue, in addition to statistical methods for EMC

Name	Date of Election	Citation
Fromme, David	June 1, 2000	For innovations in electromagnetic lethality experimental techniques on operational systems and development of system effects test beds
Gao, You-Gang	July 7, 2010	For contributions to the protection of communications systems from the effects of lightning and EMP
Garbe, Heyno	June 5, 2002	For contributions to the analysis of TEM waveguides
Gardner, Robert L.	June 2, 1994	For fundamental contributions to the understanding of lightning phenomenology and the properties of multiconductor transmission lines
Gilbert, James L.	July 22, 1992	For contributions to SREMP and SGEMP calculational methods and UGT analysis and design support
Giles, Joseph C. (Cliff)	May 23, 1990	For contributions in the development of EMP simulation and instrumentation
Giri, David Venkat	June 2, 1994	For contributions to EMP simulator design and HPM antenna design
Gonschorek, Karl-Heinz	July 14, 2004	For contributions to the international standardization of susceptibility tests
Graham, William R.	May 18, 1988	For contributions in the development of hardening engineering, test and evaluation
Gut, Jacob	June 18, 1998	For leadership of the Swiss EMP program and development of the EMP concept of general defense
Jang, Tae-Heon	July 13, 2016	For contributions to the development of test methods for HEMP combination filters
Harrison, Michael G.	June 5, 2002	For contribution to research in EMP and HPM effects on systems
He, Jinliang	July 26, 2018	For contributions to the understanding and protection of lightning discharges and electromagnetic effects
Higgins, Daniel F.	July 22, 1992	For contributions to SGEMP technology and for the development of user-friendly computer methods for estimating NEMP effects and coupling to systems and system vulnerability
Hoad, Richard	July 23, 2008	For contributions to the understanding of EMP and HPEM effects and for the development of detection and protection concepts
Hubbard, Martin	July 30, 2014	For the provision of capability advice, the coordination and leadership of research and the facilitation of international cooperation, across the UK's HPEM activities

Name	Date of Election	Citation
Hurtig, Tomas	July 26, 2018	For development of compact HPM generators and contributions to HPM susceptibility testing
Hutchins, Robert L.	May 30, 1996	For contributions to the analysis and design of EMP simulators and their use in system-level testing
Ianoz, Michel	June 2, 1994	For contributions to EMP and lightning coupling techniques
Jecko, Bernard	June 18, 1998	For contributions in the field of numerical techniques applicable to EMC, EMP and HPM analysis
Jones, Christopher C.R.	July 7, 2010	For contributions to the protection of aircraft from EMP and other electromagnetic environments
Jones, Christopher W.	May 23, 1990	For contributions to EMP environment calculations and system hardening
Junqua, Isabelle	July 30, 2014	For pioneering power balance approaches in EM topology at high frequencies
Kälin, Armin W.	June 1, 2000	For his leadership in the Swiss NEMP program, including pulse and CW testing of equipment and protected facilities
Kancleris, Žilvinas	July 30, 2014	For contributions to the development of resistive sensors for HPM pulse measurement
Karlsson, Torbjörn	July 22, 1992	For participation in, and technical leadership of the Swedish EMP program since 1974, for pioneering the generalized shield concept, and for extensive publications and conference presentations
Kasmi, Chaouki	July 13, 2016	For contributions to electromagnetic and cyber security of critical services, internet and intranet systems
Kehrer, William S.	June 2, 1994	For contributions to the development and application of EMP testing capabilities
Kondratiev, Valeri M.	May 30, 1996	For contributions to the understanding of EMP generation, environments, and coupling to systems
Kouvshinnikov, Vadim M.	May 30, 1996	For contributions to the understanding of the physics of high-altitude and surface-burst EMP generation, environments, and coupling to systems
Kuprienko, Vassily M.	June 18, 1998	For contributions to the development of EMP, SGEMP and pulsed field simulators in Russia
Lazarev, Yuri N.	July 13, 2006	For development of EMP, SGEMP and IEMP calculational techniques

Name	Date of Election	Citation
Lee, Kelvin S.H.	May 21, 1986	As one of the committee of founding fellows
Lehr, Jane M.	July 26, 2018	For contributions to the development of fast closing pulsed power switches
Leuthäuser, Klaus-Dieter	May 30, 1996	For leadership in Germany and Europe in the calculation of the HEMP environment
Libelo, Louis F.	May 30, 1996	For contributions to the understanding of electromagnetic interactions and for leadership in HPM
Loborev, Vladimir M.	May 30, 1996	For leadership of Russian nuclear effects research program and contributions to theoretical and experimental investigations of nuclear weapons effects
Lövstrand, Karl G.	June 1, 2000	Outstanding combination of theoretical and practical knowledge in EMC and EMP testing, particularly of aircraft
Lubell, Jerry I.	June 1, 2000	For contributions to military specifications for system HEMP hardening and testing and to aircraft HEMP testing and assessments
MacDiarmid, Ian P.	July 7, 2010	For contributions to the protection of aircraft from EMP and other electromagnetic environments
Magda, Igor I.	June 18, 1998	For development of facilities for HPM testing of electronic equipment
McLemore, Donald P.	June 5, 2002	For contributions to commercial and military applications of HPM/UWB technologies
Meng, Cui	July 13, 2016	For contributions in computing the HEMP environment and developing HPEM environment standards
Merewether, David E.	May 23, 1990	For contributions to the application of numerical methods in EMP coupling analysis
Messier, Michael A.	May 30, 1996	For developing the theory of DEMP, the theory of EMP reflections including frequency-dependent ground parameters, and evaluating the polarization of HEMP waveforms
Miletta, Joseph R.	June 18, 1998	For contributions to research on EMP effects on components, circuits and systems
Miller, Robert B. (Bruce)	June 5, 2002	For pioneering the super Reltron HPM source
Mo, Charles T.C.	June 2, 1994	For unique contributions to the development and application of statistical models of EMP interaction with large complex systems

Name	Date of Election	Citation
Morrow-Jones, Jonathan	July 4, 2012	For contributions to analytical and numerical modeling of HPEM coupling and effects, testing, and data processing
Naff, John T. (Tom)	June 5, 2002	For development of pulse generators for EMP simulation and HPM generation
Nitsch, Daniel	July 13, 2006	For contributions to the testing and analysis of complex systems to EMP and UWB waveforms
Nitsch, Jürgen B.	June 18, 1998	For leadership of the German EMP and HPM programs, and for pioneering contributions to the analysis of nonuniform multiconductor transmission lines
Ochs, Wilhelm	June 5, 2002	For contributions to EMP and HPM interaction with and effects on electronic systems
Page, William E.	June 18, 1998	For contributions to EMP environment calculations, system testing and coupling analysis
Pande, D.C.	July 13, 2016	For leadership of research and facilitation of international cooperation across India's HPEM activities
Parfenov, Yuri V.	May 30, 1996	For contribution to calculations and experimental methods to study SGEMP effects and simulators for combined effects of EMP and ionizing radiation
Parker, Roberts L.	May 18, 1988	For contributions to the test and hardening of strategic systems
Parkes, David M.	June 1, 2000	For research on fast transient coupling to systems, high power microwaves and ultrawideband radar
Parmantier, Jean P.	June 1, 2000	For pioneering application of electromagnetic topology with the CRIPTE code for the calculation of electromagnetic response of complex systems
Parra, Nicholas Mora	July 26, 2018	For contributions to IEMI sources and coupling to communication lines
Partridge, Ralph E.	May 18, 1988	For pioneering contributions to EMP measurement and simulation
Perala, Rodney A.	June 18, 1998	For contributions to EMP interaction modeling
Petrov, Peter V.	July 13, 2006	For development of EMP, SGEMP and IEMP calculational techniques
Phelps, Alan D.R.	July 26, 2018	For research and development of high power microwave sources

Name	Date of Election	Citation
Prather, William D.	June 18, 1998	For development of EMP and HPM test techniques and hardening standards
Rachidi, Farhad	July 13, 2006	For contributions to the coupling of EM fields radiated by lightning
Radasky, William A.	May 18, 1988	For contributions to understanding EMP generation and computation
Rambousky, Ronald	July 30, 2014	For contributions to the analysis of open TEM waveguides
Rubinstein, Marcos	July 4, 2012	For contributions to the understanding of lightning discharges and their electromagnetic effects
Ruffing, Klaus	July 14, 2004	For leadership in the German HPM susceptibility investigations of defence systems
Rynne, Timothy M.	July 4, 2012	For contributions to EMP hardening and IEMI lethality
Sabath, Frank	July 13, 2006	For contributions to the development of high-power impulse-radiating antennas
Sakharov, Konstantin Yu.	July 4, 2012	For contributions to the development of methods and facilities for EMP/UWB generation including measuring instruments to determine their parameters
Savage, Edward B.	July 13, 2006	For contributions to the understanding of the susceptibility of electronic equipment to pulsed waveforms
Schaefer, Richard R.	May 23, 1990	For contributions to the development of EMP hardness assessment methodology
Schamiloglu, Edl	July 13, 2006	For development of pulse power and high-power microwave tubes
Schlegel, Gerard K.	May 23, 1990	For contributions to the development of EMP hardness assessment methodology
Scott, Walter J.	June 5, 2002	For contributions to EMP simulator testing, and for development of standards and management of R&D programs
Serafin, Dominique J.	May 30, 1996	For playing a leading role in developing theoretical and experimental programs in France and for contributions to interaction analysis and system testing
Sevat, Peter	June 2, 1994	For leadership in EMP research in the areas of shielding, assessments, coupling, and semiconductor vulnerability and for design and construction of EMP simulators

Name	Date of Election	Citation
Shi Li-Hua	July 7, 2010	For contributions to EMP measurement and signal processing technology
Shiloh, Joseph	May 30, 1996	For leadership and contributions to EMP and HPM protection and testing in Israel
Siniy, Leonid L.	July 13, 2006	For development of EMP measurement techniques
Skipper, Michael C.	July 7, 2010	For the development of high power hyperband and mesoband sources
Smith, Kenneth	July 23, 2008	For contributions to EMP environment and system coupling calculations
Smith, Ian D.	June 1, 2000	For contributions to pulsers for EMP simulation and impulse radiating antennas
Smith, Paul	July 14, 2004	For contributions and leadership in projects modeling short-pulse electromagnetic and ultrawideband radar
Sonnemann, Frank	July 30, 2014	For contributions to the analysis of electromagnetic effects on electro-explosive devices (EED) with connected firing circuits at pulsed wideband irradiation
Soper, Gordon K.	May 30, 1996	For contributions to the nuclear hardening of strategic missile systems and to the management of the EMP technology development program.
Sower, Gary D.	June 1, 2000	For development of electromagnetic sensors and EMP simulators
Sturm, Richard	June 2, 1994	For leadership of the German EMP program and development of EMP interaction models, testing and protection techniques
Suhrke, Michael	July 30, 2014	For contributions to the testing and analysis of electronic systems to HPEM environments.
Taylor, Clayborne D.	May 18, 1988	For pioneering work in numerical methods for EMP interaction and coupling studies
Tarasov, Oleg A.	July 26, 2018	For contributions to analytical and numerical modeling of NEMP and HPEM coupling and effects, and for theoretical research on the influence of electromagnetic waveforms on antenna-feeder devices and communication and power supply lines

Name	Date of Election	Citation
ter Haseborg, Jan L.	June 18, 1998	For development of techniques for the calculation of coupling to shielded multiconductor transmission lines
Tesche, Frederick M.	May 21, 1986	As one of the committee of founding fellows
Terekhin, Vladimir A.	July 14, 2004	For developments of EMP calculation and testing techniques
Thottappillil, Rajeev	July 7, 2010	For contributions to the understanding of the effects of lightning and intentional EMI on electrified railway systems
Tkachenko, Sergey	July 23, 2008	For theoretical investigations of high-frequency electromagnetic field coupling to transmission lines in different environments
Torres, Robert	July 23, 2008	For source technology development and effects research
Turkin, Vladimir A.	July 4, 2012	For contributions to the creation of high-power EMP simulators and UWB sources
Tyo, Scott	July 23, 2008	For contributions to mesoband and hyperband antenna design and measurements
Uslenghi, Piergeorgio L.E.	June 5, 2002	For pioneering contributions to nonlinear electromagnetics
van Lint, Victor A.J.	July 14, 2004	For contributions to the basic theory and insight into the mechanisms of EMP and SGEMP
Vega, Felix	July 30, 2014	For contributions to the modeling and design of mesoband sources
Vodopyanov, Georgy	July 23, 2008	For contributions to the investigation of the immunity of radio equipment, electronic systems and components to EMP
Walters, Dolores A.	May 30, 1996	For box IEMP analysis and code methods development
Wenaas, Eric P.	July 22, 1992	For performance and technical management in the areas of SGEMP theory and experiments, as well as microwave interaction and effects on military equipment
Wik, Manuel W.	July 22, 1992	For contributions to the standardization of EMP environments and hardening procedures for non-military installations, for work with the International Electrotechnical Commission (IEC), and for management of the Swedish EMP program

Name	Date of Election	Citation
Wright, Anthony	July 23, 2008	For development of predictive methods and contributions to the assessment of system-level EMP and HPEM effects
Xie, Yan-Zhao	July 7, 2010	For contributions to EMP interaction, modeling and measurement
Yang, F.C.	May 30, 1996	For development of simple analytical techniques to calculate and understand EM coupling to complex systems
Zdoukhov, Leonid N.	May 30, 1996	For contributions to EMP coupling to aerial and underground cables, SREMP coupling to antennas and flying vehicles, and computational and experimental methods for combined EMP and ionizing radiation effects
Zwamborn, Adrianus P.M.	July 14, 2004	For leadership of the EMP and HPM programs of the Netherlands



DECEASED EMP & HPEM FELLOWS

August 2016

Name	Date of Election	Citation
Baum, Carl E.	May 21, 1986	As one of the committee of founding fellows.
Harrison, Charles W. Jr.	June 5, 2002	For contributions in EMP interaction and modeling.
Hoeft, Luther O. (Bud)	June 1, 2000	For developing practical electromagnetic protection technologies.

Name	Date of Election	Citation
Karzas, William J.	May 21, 1986	As one of the committee of founding fellows.
Kohlberg, Ira	July 14, 2004	For fundamental work in the development of the theory of electromagnetic effects and simulation.
Longmire, Conrad, L.	May 21, 1986	As one of the committee of founding fellows.
Lubell, Jerry I.	June 1, 2000	For contributions to military specifications for system HEMP hardening and testing and to aircraft HEMP testing and assessments.
Malik, John S.	May 18, 1988	For contributions to understanding the roles of nuclear radiation sources and transport in EMP generation.
Marin, Lennart O.	May 21, 1986	As one of the committee of founding fellows.
Martin, John C. (Charlie)	May 18, 1988	For development of pulse power for EMP simulation.
Morgan, Gene E.	May 18, 1988	For development and application of EMP hardening to strategic systems.
Nalborczyk, Jan	July 30, 2014	For contributions to advances in HEMP filter design.
Stahl, Ralph H.	May 23, 1990	For contributions to the source-region EMP physics data-base.
Vance, Edward F.	May 21, 1986	As one of the committee of founding fellows.