## 2003 ELECTION FOR ACES BOARD OF DIRECTORS

## CANDIDATE STATEMENTS

# **COLIN BRENCH**



#### **GENERAL BACKGROUND**

Colin Brench is a Principal Member of the Technical Staff at Hewlett Packard Corporation, formerly Compaq Computer Corporation, formerly Digital Equipment Corporation, and has been responsible for EMC product design since first joining the company in 1986. Since 1995, he has lead the effort to develop Digital's (and Compaq's) computational electromagnetic compatibility modeling capability.

Colin is a co-author of the book, *EMI/EMC Computational Modeling Handbook*, (Kluwer Academic, 1<sup>st</sup> Edition 1998, and 2nd Edition 2001), and has authored over 20 technical papers and articles. In addition, he holds ten patents for various methods of EMI control. He is a NARTE certified

EMC Engineer, a member of the IEEE EMC Society, and is active in the TC-9 and ANSI ASC63 SC-1 committees. In March of 2001, Colin was appointed a Distinguished Lecturer for the IEEE EMC Society.

At Digital / Compaq, Colin's involvement in EMC design has ranged from the microprocessor through to completed systems. His patents reflect this inclusive approach to EMC, and include VLSI packaging techniques for minimizing emissions at the source, isolation techniques, and practical methods of constructing shielded enclosures from suitably treated plastics. Specific products include small desktop workstations and servers, network products, and the much larger high-end servers and high performance technical computers that are currently his primary responsibilities.

Prior to this, Colin was with Applicon, Inc. for 6 years, where he was responsible for the formation and operation of the Compliance Engineering Department, and the compliance of all products to the regulatory standards including EMC design and testing, and UL compliance. He also formed his own consulting business, DJR Associates, where he provided EMC design and supported testing to FCC, VDE, and MIL-461, as well as providing analog circuit and power supply designs.

Colin has been active in the area of antennas and EMC since the early 1970's. From 1975 to 1979, at McMichael Ltd. and GTE Sylvania, he evaluated various antennas, waveguide structures, and designed power supplies with specialized EMC requirements.

In June 1975, he earned his B.Sc.(Hons) in Electronic Engineering at The City University in London, England. His thesis was entitled the "Design and Construction of a VHF SSB Transceiver". He was also active in amateur radio from 1967 to 1978, and had the call sign: G8DJR.

## PAST SERVICE TO ACES

Colin first began presenting papers at the ACES Annual Reviews in 1990. He is an active member of the IEEE EMC Society, Technical Committee 9 (EMCS TC9). TC9 is a committee focused on all aspects of computational electromagnetics for EMI and EMC work. Colin's primary focus has been to help bridge the gap between those developing computational tools and the EMC engineering communities. In this role he has written columns for the IEEE EMC Society newsletter on CEM, and for the ACES newsletter on EMC. He has given a number of presentations at workshops on EMI modeling for the IEEE EMC symposia and at the 2002 ACES annual conference.

## CANDIDATE'S PLATFORM

ACES continues to provide a focus for those with a wide range of skills in computational electromagnetics. At the annual conference it is clear that there are many application areas of interest. Today's engineers have unprecedented computational power available, if not in their brief cases then at the office. It would seem to be a natural extension of this capability that engineers would begin to utilize computational techniques; there is however still significant resistance to this. ACES is in a unique position to help with this situation, not only by emphasizing the "Applied" in ACES, but also by providing training.

As a member of the ACES BoD, I would drive to expand the visibility of ACES beyond those associated directly with EM theory, algorithms, and codes, to reach those who focus on measurement and experiment. Of particular interest is the area of EMC. I believe that the maturity of both CEM and personal computers are such that strides can now be taken to bring about significant changes in this field.

# **DR. CHARLES F. BUNTING**



#### GENERAL BACKGROUND

Charles F. Bunting was employed at the Naval Aviation Depot in Norfolk, VA as an apprentice, an electronics mechanic, and an electronics measurement equipment mechanic from 1981-1989. He received his A.A.S. in Electronics Technology from Tidewater Community College in 1985, the B.S. degree in Engineering Technology with highest honors from Old Dominion University in 1989. He received the M.S. degree in Electrical Engineering from Virginia Polytechnic Institute and State University (Virginia Tech) in 1992. He participated in the development of a for temperature test fixture and humidity measurements for microwave characterization of

stripline structures and investigated surface roughness effects on propagation in stripline structures. His thesis title: Issues Related to Finite Element Techniques for Two-Dimensional Transmission Structures. From 1991-1994 Dr. Bunting held a Bradley Fellowship and a DuPont Fellowship. He developed a robust functional to eliminate false solutions in full field formulations and developed a two-dimensional random mesh generator for numerical computations. In 1994 he was awarded the Ph.D. in Electrical Engineering from Virginia Tech. Dissertation title: Functionals in Electromagnetics - An Investigation into Methods to Eliminate Spurious Solutions in the Application of Finite Element Techniques.

From 1994 to 2001 Dr. Bunting was an assistant/associate professor at Old Dominion University in the Department of Engineering Technology where he worked closely with NASA Langley Research Center on electromagnetic field penetration in aircraft structures and reverberation chamber simulation using finite element techniques. The chief focus of the computational electromagnetics effort was in the development of finite element software to solve the large EM problem associated with reverberation chamber simulation for both deterministic and eigenvalue problems.

In the Fall of 2001 he joined the faculty of Oklahoma State University as an associate professor. His chief interests are fundamental variational principles and computational electromagnetics, statistical electromagnetics, electromagnetic characterization and application of reverberation chambers, and the analysis of optical and microwave structures using numerical methods including finite element techniques. He is applying moment methods for antenna interactions in the reactive reverberation studies, and finite element methods for the statistical characterization of electromagnetic reverberation chambers.

## **CANDIDATE'S PLATFORM**

The candidate has been assisting the ACES Newsletter Editor in the migration of the newsletter to an email/WEB based publication. The candidate is the Webmaster for the IEEE EMC Computational Electromagnetics Society and is responsible for EMI Modeling Web page link that is accessed from the ACES web site. Modernization of electronic resources and maintaining strong interactions with industry, government, and academia are the key to demystifying the role and capabilities of computational electromagnetics. Several mailing lists are available that promote the interchange of questions and solutions (SuperNEC and Sonnet both have listserve-like lists that help users with Q&A). Tighter integration of these communication resources with ACES resources would better serve the overall EM community.

A clear discrimination between the strengths and limitations of current EM techniques (integral equation based versus differential equation based for example) must go beyond personal preferences to the particular suitability of the method to the problem. A direct effort in unbiased comparisons must be made. Another important focus of applied computational EM is the connection of the simulation to the experimental observable (eg. scattering parameters). ACES is the venue that is best suited to address these practical issues in a manner that provides REAL answers to the questions: What am I simulating? How can I verify it? Is this the best way to approach this problem? Do I really need this tool, or would that one work better, and why?

# DR. LEO KEMPEL



## **GENERAL BACKGROUND**

Leo Kempel was born in Akron, OH, in October 1965. He earned his B.S.E.E. at the University of Cincinnati in 1989 and participated in the cooperative education program at General Dynamics/Fort Worth Division. He earned the M.S.E.E. and Ph.D. degrees at the University of Michigan in 1990 and 1994, respectively.

After a brief Post-Doctoral appointment at the University of Michigan, Dr. Kempel joined Mission Research Corporation in 1994 as a Senior Research Engineer. He led several projects involving the design of conformal antennas, computational electromagnetics, scattering analysis, and high power/ultrawideband microwaves. He joined Michigan State University as an Assistant Professor in 1998 where he is conducting research in

computational electromagnetics and electromagnetic materials characterization, teaching undergraduate and graduate courses in electromagnetics, and supervising the research of several M.S. and Ph.D. students. Prof. Kempel's current research interests include computational electromagnetics, conformal antennas, microwave/millimeter wave materials, mixed-signal electromagnetic interference techniques, and measurement techniques. Prof. Kempel has been awarded a CAREER award by the National Science Foundation and the Teacher-Scholar award by Michigan State University in 2002. He also received the MSU College of Engineering's Withrow Distinguished Scholar (Junior Faculty) Award in 2001.

Dr. Kempel served as the Chapter IV Vice-Chair for the Southeast Michigan chapter of the IEEE as well as the technical chairperson for the 2001 ACES Conference. He has organized several sessions at recent URSI and ACES meetings. He is an active reviewer for several IEEE publications as well as JEWA and Radio Science. He co-authored *The Finite Element Method for Electromagnetics* published by IEEE Press. Dr. Kempel is a member of Tau Beta Pi, Eta Kappa Nu, ACES, Commission B of URSI, and is a Senior Member of IEEE.

## PAST SERVICE TO ACES

Leo has been a member of ACES for a number of years. He has presented papers, organized sessions, served as Vendor Chairperson for the 2000 meeting, Technical Chairperson for the 2001 meeting, and Co-Chairperson for the 2002 meeting.

## CANDIDATE'S PLATFORM

Leo is interested in evolving the society in to an organization with broader appeal. Over the past few years, the society has done very well at encouraging international participation in the meetings and at providing Internet-based information to the society and electromagnetic community as a whole. However, recent changes in the world have adversely impacted the annual meeting's attendance. In particular, over the years the number of military and Department of Defense industrial engineers and scientists has reduced. I am committed to working with the society and conference management to improve the appeal for DoD and industrial attendees. Specific ideas include recruiting DoD-based session organizers who will have the charter of creating sessions that review non-sensitive CEM-related research. For example, as session on High Performance Computing (HPC) results would be welcome. We need to make presentation and participation by military researchers (and their industrial support staff) at ACES a critical part of their research mission and career development.

I am also interested in increasing the number of students associated with ACES and participating in the annual meeting. This may include the establishment of student branches with periodic, ACES-endorsed seminars by and for students. The idea is that we want to excite every CEM student with ACES and keep them after they have graduated. Experience has shown that as we transition throughout our careers, we need to chose organizations to support if for nothing else as a time-management tool. ACES should strive to the first society for all CEM researchers beginning with their student days.

#### **OTHER UNIQUE QUALIFICATIONS**

Leo has touched on three of the four pillars of ACES membership (U.S. Government, industrial, academic, and international members). After graduating from Michigan, he worked for four years in a small DoD-sponsored research company. After that period, he returned to academia and has continued to support the DoD, industry, as well as NSF and other Federal research agencies. Hence, he understands the unique needs and capabilities of the military, industrial, and academic research and development communities and is prepared to tap all of them to strengthen ACES for the future. He also looks forward to meeting more international members, understanding their concerns and talents, and hence fostering an environment of excitement amongst all four pillars of ACES.

# DR. OSAMA A. MOHAMMED



#### **GENERAL BACKGROUND**

Dr. Osama A. Mohammed is the current President of ACES since March 2002 and is a Fellow of IEEE. Dr. Mohammed is a Professor of electrical and computer engineering at Florida International University, Miami, Florida. He received his Master of Science and Ph.D. degrees in Electrical Engineering from Virginia Tech., Blacksburg, Virginia in 1980 and 1983, respectively. He has many years of teaching, curriculum development, research and industrial consulting experience. He authored and co-authored more than 175 technical papers in the archival literature as well as in National and International Conference records. In addition, he has several book chapters, edited volumes, numerous technical and project reports and monographs to his credit. He specializes in Electromagnetic Field Computations in Devices, Design Optimization Nonlinear of Electromagnetic Devices, Artificial Intelligence

Techniques and their Applications to Electromagnetic and Energy Systems. He is also interested in low power design considerations for Digital Mobile Telecommunication Applications

He received many awards for excellence in research, teaching and service to the profession. Dr. Mohammed is a Fellow of IEEE. He has extensive experience in organizing major national and international conferences. Professor Mohammed was the General Chairman of the 1993 COMPUMAG, October 31- November 4, 1993, and was Vice-Chairman of COMPUMAG-RIO, November 3-7, 1997. He was also the General Chairman of the 1996 IEEE International Conference on Intelligent Systems Applications to Power Systems (ISAP'96), Orlando, Florida, January 28-February 2, 1996 as well as the General Chairman of the 1994 IEEE Southeastcon, Miami, Florida, April 10-13, 1994. He also was a member of the technical program committee for the 1996 IEEE/CEFC conference, Okayama, Japan, and a member of the International Steering Committee for the ISEM conferences, and the 1997 (IEEE-IEMDC), Milwaukee, Wisconsin. May 18-21, 1997. Dr. Mohammed was the editorial board chairman for the 2000 IEEE/CEFC conference, June 4-7, 2000 and the editor of the associated issue of the IEEE Transactions on Magnetics. In addition, Professor Mohammed is an editor of the IEEE Transactions on Energy Conversion and currently serves on several other technical programs and editorial boards.

Furthermore, he chaired sessions and programs in numerous National and International Conferences and has delivered numerous invited lectures and tutorials at scientific organizations worldwide.

Professor Mohammed serves on several IEEE committees and boards. He is the Chairman of the Miami Section of IEEE as well as the past chairman of the Florida Council of IEEE. He was a member of the IEEE/PES Governing Board (1992-1996) and he is a currently on the board as chairman of the constitution and bylaws committee. He currently serves as chairman, officer or as an active member on several IEEE society committees, sub-committees and technical working groups.

#### **PAST SERVICE to ACES**

Dr. Mohammed is the current President of ACES since his election by the ACES BoD in March 2002. He was ACES vice president last year and he started a study on how ACES could get involved in short courses and tutorials that could be offered in electronic and web-based format. He is currently concentrating on enhancing the ACES annual conference and increasing industrial and government activities and participation in ACES. He is also concentrating on increasing the value of membership in ACES by enhancing services, communication with members as well as the conference format. He has already introduced several changes to the ACES conference format and its publicity as well as member communications. Dr. Mohammed has been on ACES BoD for the past three years. He has organized sessions and presented papers at many of the ACES conferences. Dr. Mohammed has been a long time active member of ACES and its journal editorial board as well as a recipient of ACES service award.

#### **CANDIDATE'S PLATFORM**

As the current president of ACES, for only the past two month, I have developed a vision statement that simply say "ACES will strive to be the main venue for the CEM community that is best suited for theorists, experimentalists and practitioners". During the past two decades, computer modeling and numerical methods have matured as problem-solving tools in real-world electromagnetics applications. The interdisciplinary scope of ACES is pivotal and should be directed towards maintaining "cross-fertilization" between the high-frequency and low-frequency applications as well as to experimentation and practice.

In addition to the services that ACES now offer its members, we must introduce modifications that would enhance member services and improve attendance and format of the ACES annual conference. The ACES Journal should become widely distributed, referenced and utilized by the CEM community worldwide.

In times of accelerating technological and social shifts, ACES services should be modified to deal with these changes. Electronic dissemination of information is changing our interface with the society members and is changing the way we will distribute our products and services. This represents an opportunity for us to increase the value of ACES membership in general as well as to organizational groups such as industry and government institutions in particular. We need to understand what member value is today and what it should be in the future to ensure that we continue to serve industry and the CEM community. With more of our information coming from the Internet, we need to offer a full range of electronic products and services. ACES needs to be the first source for its members to go for information. We must help the member identify the right information and then provide appropriate access to it.

We also need to improve our focus on industry and government agencies and increase the relevancy of ACES to these organizations. This can take many forms such as publications and products that give practical information such as standards. We could also focus on professional networking by facilitating communications among practitioners and experimentalists in specialized technical areas in the applied electromagnetics field.

ACES also need to increase its continuing education focus. For industrial members and their managers, continuing education is very important to keep up to date and may fill a need of acquiring professional development hours (PDH) required to maintaining licensure as well as it could be a source of income for the society.

The overall future of ACES is very bright and we can be valuable in our members. ACES can be extremely relevant if we work hard and execute the above items in our vision. The key for us is to utilize the opportunities inherent in the dramatic changes in our world and our technology. Relevance to our members with products and services will increase membership and enhance attendance at the annual symposium. As ACES president and BoD member I will continue to promote ACES on all fronts; work towards tasks outlined in our vision and increase communication and cooperation with other organizations.

# DR. OMAR RAMAHI



## **GENERAL BACKGROUND**

Omar M. Ramahi received the BS degrees in Mathematics and Electrical and Computer Engineering, with highest honors, from Oregon State University, Corvallis, OR in 1984. He received his M.S. and Ph.D. in Electrical and Computer Engineering in 1986 and 1990 respectively from the University of Illinois at Urbana-Champaign. From 1990-1993, he held a visiting fellowship position at the University of Illinois at Urbana-Champaign including a oneyear appointment as a Postdoctoral Fellow working with the Professor Y. T. Lo on microstrip antenna problems. In 1993, he joined Digital Equipment Corporation as a member of the

Technology Development Group. In 1994 he became a member of the alpha server product development group at the same company. In August of 2000, he joined the faculty of the A. James Clark School of Engineering at the University of Maryland at College Park, where he presently holds a faculty appointment in the Mechanical Engineering Department and an affiliate appointment in the Electrical and Computer Engineering Department. Professor Ramahi is also a faculty member of CALCE Electronics Products and Systems Center at the University of Maryland.

Dr. Ramahi served as a consultant to several companies. He was instrumental in developing computational techniques to solve a wide range of electromagnetic radiation problems in the fields of antennas, high-speed devices and circuits and EMI/EMC. He has developed computational electromagnetic codes based on the Method of Moments, the Finite Element method, the Finite-Difference Time-Domain method, amongst others. His interests include theoretical, experimental and computational EMI/EMC studies, high-speed devices and interconnects, biomedical applications of electromagnetics, novel optimization techniques, interdisciplinary studies linking electromagnetic application with new materials. He has authored and co-authored over 110 journal and conference papers and presentations. He is a co-author of the book *EMI/EMC Computational Modeling Handbook*, 2<sup>nd</sup> Ed., (Kluwer Academic, 2001). Dr. Ramahi is a member of Eta

Kappa Nu and Tau Beta Pi honor societies. He is also a Senior Member of IEEE and a member of the Electromagnetics Academy.

## PAST SERVICE TO ACES

The candidate's past service to ACES includes presentation of numerous papers, organization of special sessions for the ACES Symposia and participation as short course instructor.

## CANDIDATE'S PLATFORM

The field of electromagnetism (EM) is probably one of the very few fields in applied science that has reached a high level of maturity. Computational electromagnetism, which is considered the applied side of electromagnetism, has witnessed an explosive growth in the past fifteen years. Today, we have numerical algorithms that can characterize wave-matter electromagnetic interaction with a high degree of accuracy and with sufficient speed. Despite the maturity in both theoretical and computational electromagnetism, the application of computational EM to new technological frontiers remain in its infancy. For instance, in the emerging field of nanotechnology, sensors, biomedical devices, amongst others, electromagnetism is expected to play a significant role. For computational EM practitioners, the primary challenge is in the fact that these new technologies are driven by strong interdisciplinary research teams that are typically devoid of computational EM experts. Interestingly enough, the classical EM practitioner paradigm has changed. Instead of using computational EM to solve known problems, we need to look at applications that can be designed by harvesting the power of EM with the aid of computational EM.

Having the vintage point of working with mechanical, electrical, and aerospace engineers in the emerging technologies, I have the advantage of identifying new and significant applications of computational EM and bring these applications to the EM community through ACES. Furthermore, bringing a strong focus to ACES activities and seminars would be a priority. Despite the plethora of symposia and technical societies involved in electromagnetics, there is a distinct place for a society, such as ACES, which is devoted exclusively to practical computational electromagnetics. For this reason, ACES needs to have a strong focus through symposia and published media that reinforces its distinct thrust. The ACES annual meeting has been suffering in the past few years from lower attendance than in the earlier years. This phenomenon needs to be addressed and structural changes might become necessary to maintain the vitality, strength and relevance of ACES. These are some of the issues that I like to address if I become a Board Member.

# DR. TAPAN SARKAR



#### **GENERAL BACKGROUND**

Tapan Kumar Sarkar received the B. Tech. degree from the Indian Institute of Technology, Kharagpur, India, in 1969, the M.Sc.E. degree from the University of New Brunswick, Fredericton, Canada, in 1971, and the M.S. and Ph.D. degrees from Syracuse University; Syracuse, New York in 1975.

From 1975 to 1976 he was with the TACO Division of the General Instruments Corporation. He was with the Rochester Institute of Technology, Rochester, NY, from 1976 to 1985. He was a Research Fellow at the Gordon McKay Laboratory, Harvard University, Cambridge, MA, from 1977 to 1978. He

is now a Professor in the Department of Electrical Engineering and Computer Science, Syracuse University; Syracuse, NY. His current research interests deal with numerical solutions of operator equations arising in electromagnetics and signal processing with application to system design. He obtained one of the "best solution" awards in May 1977 at the Rome Air Development Center (RADC) Spectral Estimation Workshop. He has authored or co-authored innumerable journal articles and numerous conference papers and has written chapters in ten books including the latest one "Iterative and Self Adaptive Finite-Elements in Electromagnetic Modeling" which was published in 1998 by Artech House. He has published eight general purpose computer programs through Artech House which deal with various aspects of radiation and scattering analysis from composite structures, analysis of printed circuits, transient and steady state responses of nonlinearly loaded transmission lines and so on. He is a distinguished lecturer (2000-2002) for the IEEE Antennas and Propagation Society.

Dr. Sarkar is a registered professional engineer in the State of New York. He received the Best Paper Award of the IEEE Transactions on Electromagnetic Compatibility in 1979 and in the 1997 National Radar Conference. He was an Associate Editor for feature articles of the IEEE Antennas and Propagation Society Newsletter, and he was the Technical Program Chairman for the 1988 IEEE Antennas and Propagation Society International Symposium and URSI Radio Science Meeting. He is on the editorial board of Journal of Electromagnetic Waves and Applications and Microwave and Optical Technology Letters. He has been appointed U.S. Research Council Representative to many URSI General Assemblies and was the Chairman of the Intercommission Working Group of International URSI on Time Domain Metrology (1990-1996). He has served on the ACES board of directors from (2000-2003). Dr. Sarkar is a member of Sigma Xi and International Union of Radio Science Commissions A and B. He received the title Doctor Honoris Causa from Universite Blaise Pascal, Clermont Ferrand, France in 1998.

#### PAST SERVICES TO ACES

The candidate has contributed to both invited and survey papers to the ACES conference, journal, on the board of directors (2000-2003) and has actively supported exhibit booth at

the ACES conferences. In addition, sessions were also organized in the last two ACES conferences.

### **CANDIDATE'S PLATFORM**

The strength of ACES lies in the following areas:

- 1. Providing a more pragmatic and user-oriented approach to computational electromagnetics thereby providing a strong coupling between the code users and the code developers.
- 2. Providing focussed articles, which are more practical and more meaningful to the users.
- 3. Providing an open forum with an extended summary of the presentations, which make it very convenient for a reader to understand what the speaker talked about in the conference long after the conference, is over.

Therefore to continue along the niche areas of strengths of ACES, my participation in the past had been to organize technical sessions along these themes, particularly on use of electromagnetic simulation codes. An attempt was made to delineate pros and cons of some of the commonly used codes so that light can be generated without heat. If selected again, I shall continue my efforts in this direction and might increase the technical scope in generating tutorial articles on this topic from experienced scientists belonging to this community.

In summary, the strength of ACES lies in building a stronger connection between the code developers and the users and that should be further enhanced. This is what I propose to strengthen further.

## **OTHER UNIQUE QUALIFICATIONS**

I believe I can create a stronger link between the CEM theoreticians and the users by making an attempt to reorient the theoreticians into looking at the solution of a CEM applications from a practical pragmatic standpoint. In addition valuable information can be gained from such interactions between researchers of such diverse background as we have tried to follow the same philosophy during the last decades by not only developing computer codes but also making them user friendly for researchers who are not familiar with them.

# **DR. SIMON WALKER**



### GENERAL BACKGROUND

Simon Walker received his Bachelor's degree from Imperial College, London, in 1977, and his PhD, also from Imperial, in 1980. He was employed by the United Kingdom Atomic Energy Authority from 1977 to 1980, engaged on fast reactor safety analysis and nuclear fuel modelling studies. In 1980 he joined Shell International, and worked in The Netherlands and Canada, as an engineer engaged on the construction and operation of sour gas processing plants. In 1984 he returned to the UK, and joined the faculty of Imperial College. He is presently reader in the Computational Mechanics Section of the Mechanical Engineering Department. His group is involved in the development and application of computational methods for electromagnetic wave propagation, in particular the development of time

domain integral equation and time domain finite element methods for scattering and RCS problems. He is a Chartered Electrical Engineer (MIEE), and a member of the IEEE.

## PAST SERVICE TO ACES

He was one of the founding members of the UK Chapter of ACES, and is a Member of its Management Committee. The UK Chapter provides a mechanism for UK based workers to join ACES, and helps to promote interactions between UK practitioners and researchers in the area of applied CEM. Simon Walker has been the Chair and organiser of the ACES (UK) Annual Meetings for the last six years. We use these meetings also to try to foster links with other parts of ACES, and each year bring over a speaker to present a Short Course, either from mainland Europe, or more commonly the USA.

### PLATFORM

We like to feel that the spread of ACES membership outside the US is mutually beneficial, both strengthening ACES, and facilitating access to a larger community for what are generally much smaller groups of workers outside the US. The UK is the largest non-North American group of ACES members, and whilst geographically remote, we try to play as active a part as distance allows! We hope that having one of our number on the Board of ACES (as indeed has been the case for some years) will be valuable, both generally, and additionally in providing input from a different perspective, and trying to encourage the growth of non-North American participation in ACES.