Dear SRA-New England Members:

Hello again to all after a bit of a break while we have regrouped. Since we last met in November, we have been reassessing the functions of the organization and getting better informed about the interests of the members. Thanks to those who responded to the questionnaire that was sent out in December to find out what you liked and did not like about chapter activities in recent years. Also with this newsletter is notice of an upcoming seminar.

I’ll first give you a synopsis of the responses to the questionnaire. Work conflicts and other time demands take a big toll on attendance. Some prefer meetings outside of the downtown Boston area, others like meeting downtown because of the availability of public transportation. Some weren’t aware that we have been meeting once again this year at MIT where parking historically hasn’t been an issue. There was no uniform consensus on the best time to meet. Moving to much later times doesn’t work well with those who have to get home for family responsibilities and starting earlier in the afternoons cuts into the work day for many people. Some expressed a desire to have more practically oriented presentations that would be of benefit to those engaged in the practice of risk assessment. There was a pretty consistent agreement that reducing the frequency of meetings has merit in the face of poor attendance at monthly meetings. There was little support for an annual meeting of a day or two as an alternative.

Given the recommendations from the members who responded and after conferring with a number of recent past officers, I plan to only program 2-3 more sessions for the remainder of this year. I’ll try and incorporate some aspect of the practical into some of them, and some may deal with more theoretical aspects of risk assessment components. We’ll try and have one meeting out in the Route 128 area. The meeting format will remain pretty much the same since many of those who do actively participate in the Chapter value the face-to-face exchanges that occur during and after our meetings.

We have a change of faces in a couple of our Chapter officers. Susan Matkoski has had to step down from coordinating the newsletter and is succeeded by Jane Parkin, at Haley & Aldrich. Thanks very much to Susan for performing this function for a number of years. Paul Locke’s busy schedule has necessitated that he give up managing our Chapter web site, but Lydia Thompson in my own office has graciously agreed to take over the duties. Paul got us started with an attractive webpage; now we’ll try and bring the website up to date in the very near future.
I’d like to close by urging you to try and take the time to participate in your society and attend a selection of meetings. I personally view the meetings as a time to not only learn more about things that I work on, but also to be exposed to new ideas. We’ll try and make the Chapter’s activities rewarding ones to function as adjuncts to your professional lives. Please view sessions as an opportunity for you to float new ideas and to share the benefit of your experience with the presenters. Graduate students have not traditionally been active participants in our activities, and I encourage them and their advisors to become more actively involved. Our meetings can serve both as a place to learn more about risk assessment and as a forum in which to present research.

For the next function, we are fortunate to have on short notice, José Rui Figueira of the Instituto Superior Tecnico, Lisbon, Portugal as a speaker next Thursday, February 15 at a special session which will be a joint effort of NE SRA and the SRA’s Decision Analysis and Risk Specialty Group. He is visiting Boston and has graciously agreed to present a seminar highlighting recent trends in the field of Multi-Criteria Decision Making. Following Dr. Figueira’s presentation, there will be a panel discussion from Dr. Figueira, Dr. Igor Linkov and Tom Angus on the application of multi-criteria decision-making in risk assessment. Please note the location change. ICF Consulting has graciously agreed to host the meeting in Lexington.

I look forward to renewed enthusiasm for the Chapter activities. Please feel free to volunteer to speak, suggest speakers and topics. I hope to see many of you in the coming months.

Sincerely,

Michael Hutcheson, President
Recent Trends in Multi-Criteria Decision Making

José Rui Figueira
Instituto Superior Tecnico
Departamento de Engenharia e Gestao
Porto Salvo, Portugal

Abstract: In this presentation we will present the history of two largest families of Multi-Criteria Decision Making (MCDM) methods: utility-theory- and ELECTRE-methods. We describe the classification of different MCDM problems and show how these problems are confronted by applying different methods. Traditional methods from both families are unable to handle uncertainties in the data; deterministic values for all parameters are required. A recent family of MCDM methods allows traditional methods to be extended to use imprecise parameter values by applying simulation. We will present two latest additions to this family of methods, namely SMAA-TRI that is made for assigning alternatives into predefined sorted categories, and SMAA-III for ranking alternatives. More insight into application of these methods is given with a re-analysis of an existing case study. The re-analysis points out the weaknesses and mis-judgements in the original study. This re-analysis applies SMAA-TRI to land zoning of an area where mining has caused land subsidence and destruction of local infrastructure. We present a user-friendly software that implements these two methods.

Biography: José Rui Figueira is an Associate Professor at the IST of Technical University of Lisbon since August 2005. He previously had a position as Associate Professor at the School of Economics of the University of Coimbra, Portugal, and researcher at INESC-Coimbra. Currently he develops his research at CEG-IST and LAMSADE, Paris-Dauphine University, France. He obtained his Ph.D. (1996) in Operations Research from the University of Paris-Dauphine. He has been an invited
researcher at the London School of Economics, Rutgers University, Auckland University, University of Catania, University of Talca, Free University of Brussels, Clemson University, University of Georgia, University of Valenciennes, Carnegie Mellon University and many others. His current research interests are in decision analysis, integer programming, network flows and multiple criteria decision aiding. His works have been published in international journals such as European Journal of Operational Research, Computers & Operations Research, 4OR, Annals of Operations Research, Journal of the Operational Research Society, Journal of Mathematical Modelling and Algorithms, European Business Review, Socio-Economic Planning Sciences. He is the co-editor of the book Multiple Criteria Decision Analysis: State of the Art Surveys, Springer, 2005. He is the current editor of the newsletter of the European Working Group on MCDA and also belongs to the Executive Committee of the MCDM International Society.

5:30-6:30

Panel on Application of Risk Assessment and Multi-Criteria Decision Making for Environmental Management

Panelists: José Figueira, Technical University of Lisbon
Igor Linkov, Intertox Inc.
Tom Agnus, Mass DEP
TBA, INFORMS Decision Analysis Society

The panel will discuss applications of risk assessment and Multi-Criteria Decision Analysis to a wide range of case studies, including environmental management, land use planning, emerging risks, nanotechnology, budget allocation, portfolio balancing, and acquisition management.

Dr. Igor Linkov is a Managing Scientist with Intertox Inc. in Brookline, MA, and Adjunct Professor of Engineering and Public Policy at Carnegie Mellon University in Pittsburgh, PA. Dr. Linkov has managed ecological and human health risk assessments at several Superfund sites. One of the focuses of his current research is integrating risk assessment and multi-criteria decision analysis tools in military and environmental management. He is currently developing decision support tools to prioritize resource allocation and technology gaps in several military programs as well as in other areas (such as algal bloom management, coastal restoration planning and nanotechnology). He is currently developing the Questions and Decision (QnD) model for environmental management at contaminated and disturbed sites for the US Army Corps of Engineers. He has published widely on environmental policy, environmental modeling, and risk analysis, including eight books and over 80 peer-reviewed papers and book chapters. Dr. Linkov has organized more than dozen national and international conferences and continuing education workshops on risk assessment, decision analysis, risk communication and modeling and participated in organizing many others. Dr. Linkov serves as a Scientific Advisor to the Toxic Use Reduction Institute, a position that requires nomination by the Governor of Massachusetts. Dr. Linkov is the Founding Chair of the SRA Decision Analysis and Risk Specialty Group. Dr. Linkov is Past President for the Society for Risk Analysis-New England. Dr. Linkov is the recipient of the prestigious 2005 SRA Chauncey Starr Award for exceptional contribution to Risk Analysis.

Tom Angus has worked as a risk assessor for the Massachusetts Department of Environmental Protection’s Office of Research and Standards for six years. He reviews human health and ecological risk assessments and writes policy and guidance for conducting risk assessments under the Massachusetts Contingency Plan. Prior to his work at MassDEP, Tom was a consultant for ten years, conducting risk assessments in more than half the states in the U.S. for clients such as Fortune 500 companies, state environmental agencies, and federal agencies such as the Environmental Protection Agency, the Forest Service, the Department of Energy, the Army Corps of Engineers, and the National Park Service. Tom has a
Bachelor of Science Degree from Tufts University and a Master of Science Degree from the University of North Carolina School of Public Health. His master’s thesis applied decision analysis techniques to ecological risk assessment. In addition to his current job at DEP, Tom is pursuing a PhD in the Department of Environmental, Earth, and Ocean Sciences at UMass-Boston.

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POSITIONS (none this month) Please note that the job-posting fee for this newsletter is $100 for recruiters/commercial and $50 for government and nonprofit organizations. Please make your payment to Arlene Levin, NE-SRA Treasurer at Eastern Research Group. Inc. 110 Hartwell Street, Lexington, MA 02421