SIGSIM FY'13 Annual Report
July 2012-June 2013
Submitted by: Paul Fishwick, Chair

1. Awards

   SIGSIM Distinguished Contributions Award, presented to Robert G. Sargent, Professor Emeritus, Syracuse University. Award presented at the SIGSIM meeting in the 2012 Winter Simulation Conference in December 2012. The awardee receives an honorarium of $1,500 and a plaque.

   Ph.D. Colloquium Award (in SIGSIM-PADS conference). First Prize: Xiaosong Li "GPU Accelerated Three-stage Execution Model for Event Parallel Simulation". Runner-Up: Dylan Pfeifer, "A Method for the Distributed Simulation of Cyber-Physical Systems."

   Best Paper Award at SIGSIM-PADS 13: Stein Kristiansen, Thomas Plagemann, and Vera Goebel, "Modeling Communication Software for Accurate Simulation of Distributed Systems."

   Keynote Speaker at SIGSIM-PADS 13: Pierre L'Ecuyer, "Challenges in Stochastic Modeling of Complex Service Systems for Simulation and Optimization" and *Invited Speaker*: Aran Hegarty, "Challenges in Cyber M&S – a Navy Cyber Warfare Development Group Perspective."

2. Research

   The new conference (SIGSIM-PADS) introduces content that is based on computational methods, models, algorithms, and platforms. Research was presented at SIGSIM-PADS 2013 in the following areas: automatic model generation, heterogeneous parallel simulation, modeling and simulation theory, multicore architectures for simulation, activity modeling, agent-based simulation, distributed simulation, hardware-in-the-loop simulation, applications, and a *grand challenges in modeling* panel. Preparations and planning for SIGSIM-PADS 14 are already underway. This conference will be held in Denver, CO.

   The Winter Simulation Conference (WSC 13) always covers a wide array of modeling and simulation research. WSC is co-sponsored by SIGSIM.

   Other conferences that disseminate cutting-edge research are joined with SIGSIM via InCoop agreements: SimuTools: International ICST Conference on Simulation Tools and Techniques, SpringSim: Spring Simulation Multiconference, SW: Simulation Workshop, WRPG: Workshop on Research Prototyping, and Simultech: International Conference on Simulation and Modeling Methodologies, Technologies and Applications.

3. Service

   We held the first conference on SIGSIM-PADS (Principles of Advanced Discrete Simulation) in Montreal in May 2013. SIGSIM-PADS is now the flagship conference for SIGSIM and was instantiated by leveraging a previously existing conference (PADS) that has a 26 year reputation for quality. The goal of SIGSIM-PADS is to become the premiere conference on the *computational aspects of simulation*. The # of papers submitted: 75, # accepted 29 full papers, 11 work in progress papers, and 3 invited papers.

   We developed a re-architected a web presence for SIGSIM, located at www.sigsim.org.

   A new editorial structure was put in place for MSKR: Osman Balci is Editor of the web presence, with two associate editors, Navonil Mustafee and Saikou Diallo. This structure was deemed essential as increasingly, members visit web sites and media for their information and knowledge. A new associate editor is planned for a future social media activity.

   We developed a set of modeling and simulation related videos using an automated video mining script, which was subsequently placed in GitHub for access by other SIGs if desired. Over 1000 videos are now viewable through our revamped Modeling and Simulation Knowledge Repository (MSKR).

   Members receive a copy of the proceedings for the SIGSIM conference in CD form.

4. Participation

   We instrumented a PhD colloquium, modeled on the colloquium held as part of the annual Winter Simulation Conference. SIGSIM-PADS had 14 student participants.

   We created new travel awards for students to attract them to simulation conferences such as WSC 12 in Berlin, Germany, and SIGSIM-PADS 13 in Montreal, Canada.

   SIGSIM increased participation through a partnership with the Society for Modeling & Simulation International (SCSI). PADS 2013 was co-sponsored by SCSI. The requirements were: 1) SCS would receive a signed letter to indicate a "technical" cosponsorship without financial or legal liability from SCS, 2) SCS members would be entitled to the reduced conference registration rate, similar to the rate for the members of SIGSIM, and 3) SCS would receive an end-of-conference report. This connection of an ACM SIG to SCSI was a way to broaden our reach across societies, and by doing so, to increase our collective visibility.

5. Future

   Develop new custom videos on modeling and simulation for the web site. Ten offers are to be made to established modeling and simulation professionals, and $1,000 to each individual toward development costs, or as honoraria.

   Develop a strategy and plan for using social networking in SIGSIM. Presently, the methods used are ad hoc and not uniformly applied. An associate editor is being identified for this function.

   Continue to offer the SIGSIM-PADS conference on an annual basis. Maintain the quality of the submissions, strengthen the conference, and grow the size.

   Investigate publishing video journal submissions. This might be done in concert with the ACM Transactions on Modeling and Simulation (ACM TOMACS), or separately. The idea is to publish a fairly short paper with a well-done video used to illustrate modeling and simulation research.

   Investigate student chapters, possibly by coordinating with SCSI. This is currently being discussed with the ideas being explored in meetings that started July 2013.