

2013 ITEA Journal Themes



The ITEA Publications Committee has established themes for the 2013 issues of *The ITEA Journal* and invites articles in the following areas:

T&E Challenges and Issues (March issue). Challenges are the rule not the exception in test and evaluation (T&E) and innovation is a necessity not a choice. Budget and schedule constraints are a fixture but the daunting task facing us is addressing the technological hurdles. New system complexity increases as technology allows designers to do more in a smaller volume. Test technology must evolve faster than those systems to be tested, and must produce more sensitive instruments than the systems to be measured. The number of ranges available and facilities on those ranges continues to diminish and encroachment on land and spectrum accelerates. Autonomous and cognitive systems present all new test requirements, and cyberspace testing pushes us beyond thinking outside the box – there is no box. T&E challenges range from characterizing the required test environment, providing production representative articles for operational testing, and producing adequate threat systems through assimilating emerging technology, distributed testing, and shortage of critical skills, to loss of test facilities, hypersonics and integrating new with legacy systems.

(Manuscript deadline: December 1, 2012)

The Changing Face of Developmental Test & Evaluation (June issue). Within the Department of Defense big changes are taking place in developmental test and evaluation. The Office of the Deputy Assistant Secretary of Defense (DASD), Developmental Test and Evaluation (DT&E), was established effective June 23, 2009, "to serve as the principal advisor to the Office of the Secretary of Defense and the Under Secretary of Defense for Acquisition, Technology and Logistics in matters relating to DT&E in defense acquisition programs." The Air Force has restructured its developmental test centers into the Air Force Test Center. The Army Test and Evaluation Command sought efficiencies by reorganizing and incorporating the functions of its Developmental Test Command into higher headquarters. The US Marine Corps has established a developmental testing organization. After three years of change this issue takes a look at subsequent developments; the impact of the changes on the services, their contractors, and industry; integrated testing, system of systems testing, joint and developmental evaluation, new organizational conflict of interest policy, and related ideas.

(Manuscript deadline March 1, 2013)

Truth in Data (September issue). The test and evaluation community is moving to a more rigorous and scientific basis. Vocal support has come from the Office of the Director of Operational Test and Evaluation in the Department of Defense, championing rigor and objectivity in T&E, and the Air Force Flight Test Center has an initiative in statistically defensible T&E. Many organizations have embraced design of experiments for test planning and evaluation; however, there are two caveats: statistics is more than just design of experiments; and statistics can be used to prove anything, even the truth. A scientifically based T&E process is naturally rooted in systems engineering and takes an end-to-end view to testing. Modeling and simulation and distributed testing are common tools, which introduce the requirements for verification, validation, accreditation and certification. Looking beyond T&E, there are commonalities with the operations research/systems analysis community, which uses many of the same fundamental approaches to evaluate mission performance against desired operational outcomes, but during real-world operations. Truth in Data seeks insights into, lessons learned and success stories from scientific rigor in T&E and the quest for more efficient and effective testing. It also investigates common ground with the operations research/systems analysis community.

(Manuscript deadline: June 1, 2013)

T&E in the Global Marketplace (December issue). The economy is global with a degree of connectedness which has never existed. Ownership of companies is fluid, moving overseas only to return, resulting in sister organizations distributed around the world. Product development is often spread among many partners to distribute cost and risk, share revenue, and to cultivate markets. Software companies have development partners around the world allowing work to progress 24 hours a day. The inter-relationships also present problems, not least of which are multiple time zones, culture, language, units of measure, security and protecting intellectual property. T&E in the Global Marketplace looks outside the confines of the Department of Defense to testing in other government agencies, in industry and universities, and recognizes the "I" in ITEA.

(Manuscript deadline: September 1, 2013)

Articles and Submission: T&E articles of general interest to ITEA members and *ITEA Journal* readers are always welcome. Each issue includes specialty features, each 2-3 pages long: "**Featured Capability**" describes unique, innovative capabilities and demonstrates how they support T&E; "**Historical Perspectives**" recall how T&E was performed in the past or a significant test or achievement, often based on personal participation in the "old days" of T&E; "**Tech Notes**" discusses innovative technology that has potential payoff in T&E applications or could have an impact on how T&E is conducted in the future. **Interested authors:** Submit contributions to the ITEA Publications Committee Chairman (itea@itea.org, attention: Dr. J. Michael Barton). Detailed manuscript guidelines can be found at www.itea.org under the ITEA Publications tab.