PUBLICATIONS SEEK APPLICATIONS FOR 2020 EDITORS IN CHIEF

The IEEE Computer Society (CS) seeks applicants for the position of editor in chief (EIC) for terms starting 1 January 2020 (durations are provided below). The deadline is 5 March 2019.

Prospective candidates are asked to provide a PDF file containing

1. a letter of institutional/employer support for this editorship, should the position be offered
2. a plan or vision statement that details the prospective course of action that the applicant projects to take with respect to the publication. This plan shall include
   a. the applicant’s perspective of the publication, including challenges and opportunities
   b. the tasks of the EIC to meet the challenges and to exploit the opportunities
   c. the objective milestones associated with the intermediate and final accomplishment of these tasks
   d. the projected schedules for the accomplishment of these milestones
   e. the projected organization that will accomplish these tasks
   f. the funding requirements to accomplish these tasks, if any.
3. a complete curriculum vitae, including publications and editorial experience.

For more information on the search process and to submit application materials for the following titles, please contact the following staff members.

**Magazines**

› Computer (three-year term, renewable for two years): Carrie Clark, c.clark@computer.org

**Transactions**

› IEEE Transactions on Cloud Computing (three-year term, renewable for two years): Kim Sperka, ksperka@computer.org
› IEEE Transactions on Big Data (two-year term, renewable for two years): Kim Sperka, ksperka@computer.org
› IEEE Transactions on Mobile Computing (three-year term, nonrenewable): Carrie Clark, c.clark@computer.org.

Candidates for any CS EIC position should possess a good understanding of industry, academic, and government aspects of the specific publication’s field. In addition, candidates must demonstrate the managerial skills necessary to process manuscripts through the editorial cycle in a timely fashion. An EIC must be able to attract respected experts to his or her editorial board. Major responsibilities include

› actively soliciting high-quality manuscripts from potential authors and, with support from publication staff, helping these authors get their manuscripts published
› identifying and appointing editorial board members, with the concurrence of the Publications Board
› selecting competent manuscript reviewers, with the help of editorial board members, and managing timely reviews of manuscripts
› directing editorial board members to seek special-issue proposals and manuscripts in specific areas
› providing a clear, broad focus through promotion of personal vision and guidance where appropriate
› resolving conflicts or problems as necessary.

Applicants should possess recognized expertise in the computer science and engineering community and must have clear employer support.

**Reappointments**

Other CS publications have EICs who are currently standing for reappointment to a second term. The CS Publications Board invites comments on the tenures of the individual editors. Please send comments to staff members as listed following the EiC’s name

EICs standing for reappointment to terms in 2020–2021 are

› V.S. Subrahmanian, IEEE Intelligent Systems: Carrie Clark, c.clark@computer.org
› Jim X. Chen, Computing in Science & Engineering: Carrie Clark, c.clark@computer.org
› Xuemin Lin, IEEE Transactions on Knowledge and Data Engineering: Kim Sperka, ksperka@computer.org
› Sven Dickinson, IEEE Transactions on Pattern Analysis and Machine Intelligence: Carrie Clark, c.clark@computer.org
› James Joshi, IEEE Transactions on Services Computing: Kim Sperka, ksperka@computer.org
› Daniel J. Sorin, IEEE Computer Architecture Letters: Carrie Clark, c.clark@computer.org

RAVI NAIR OF IBM THOMAS J. WATSON RESEARCH CENTER RECEIVES 2018 IEEE COMPUTER SOCIETY B. RAMAKRISHNA RAU AWARD

The IEEE CS awards committee named Ravi Nair of the IBM Thomas J. Watson Research Center as recipient of the 2018 B. Ramakrishna Rau Award, which
honors significant contributions in the field of computer microarchitecture and compiler code generation. Nair was recognized "for contributions to branch prediction in processors, microarchitecture techniques in heterogeneous processing, microarchitecture support for virtual machines, and near-memory processing."

The B. Ramakrishna Rau Award recognizes Rau’s distinguished career in promoting and expanding the use of innovative computer microarchitecture techniques, including his innovation in compiler technology, leadership in academic and industrial computer architecture, and extremely high personal and ethical standards.

As a researcher at the Watson Research Center, Nair is currently working in the area of artificial intelligence (AI), aiming to understand how AI can be made more effective—not only from a performance point of view but also from an ethical point of view.

Early in his career, Nair was active in the area of electronic design automation, especially test pattern generation for memories, system diagnosis, and integrated circuit layout. He codesigned, built, and programmed the first parallel processor at IBM Research, a Z80-based 64-processor special-purpose machine for integrated circuit layout. Nair then worked on the microarchitecture of IBM’s RISC and mainframe processors, particularly on branch prediction, instruction fetch design, dataflow, and multithreading techniques.

He worked on several heterogeneous architectures to exploit instruction- and data-level parallelism. Notable among these are the Dynamic Instruction Formatting architecture, the IBM Cell Processor architecture, and the Active Memory Cube, the last of which merges concepts in heterogeneous computing with concepts in near-data processing to meet the stringent power, scalability, and performance requirements of future supercomputers.

Nair has also worked in the areas of multiprocessor virtualization, approximate computing, and distributed deep learning. He has published extensively, with 46 papers in journals and conferences, 15 research reports, and 68 U.S. patents. He also coauthored Virtual Machines: Versatile Platforms for Systems and Processes.

A Fellow of the IEEE, Nair earned several awards for his work at IBM, where he is a Distinguished Research Staff Member, a member of the Academy of Technology, and a Master Inventor. Nair joined IBM after receiving a bachelor of technology degree in electronics and electrical communication from the Indian Institute of Technology, Kharagpur, and M.S. and a Ph.D. degrees in computer science from the University of Illinois at Urbana–Champaign. While at IBM, he spent a sabbatical year at Princeton University, New Jersey, and taught at Columbia University, New York.

The 2018 Rau Award, which includes a certificate and a US$2,000 honorarium, was presented at the IEEE/ACM International Symposium on Microarchitecture (MICRO 2018) in October in Fukuoka, Japan.

LINDA PETZOLD RECOGNIZED WITH PRESTIGIOUS 2018 IEEE COMPUTER SOCIETY SIDNEY FERNBACH AWARD

University of California, Santa Barbara (UCSB), Distinguished Professor Linda Petzold was selected to receive the 2018 IEEE CS Sidney Fernbach Award. She was recognized for “pioneering contributions to numerical methods and software for differential-algebraic systems and for discrete stochastic simulation.”

Established in 1992 in memory of high-performance computing pioneer Sidney Fernbach, the Sidney Fernbach Award is one of the CS’s highest awards and recognizes outstanding contributions in the application of high-performance computers using innovative approaches. Petzold is currently Mehrabian Distinguished Professor in the Department of Mechanical Engineering and the Department of Computer Science.
(Chair 2003–2007) and director of the computational science and engineering graduate emphasis at UCSB. She is a member of the U.S. National Academy of Engineering and a fellow of ACM, ASME, SIAM, and AAAS.

Best known for her pioneering work on the numerical solution of differential-algebraic equations (DAEs), Petzold’s research focuses on modeling, simulation, and analysis of multiscale systems in materials, biology, and medicine. Many physical systems are naturally described as systems of DAEs; these systems often consist of differential equations coupled to nonlinear constraints and occur in the mathematical modeling of electrical networks and power systems, flow of incompressible fluids, mechanical systems simulation and control, chemical process simulation and control, and many other areas.

Petzold’s software—DASSL and its successor DASPK for the numerical solution of DAEs—is widely used throughout science, engineering, and technology.

Petzold has also made seminal contributions in the area of systems biology. Much of her work in this area has focused on developing computational techniques for the discrete stochastic simulation of multiscale biochemical systems. She has also developed widely used software for discrete stochastic simulation, including the StochKit2 and StochSS software packages. Using these techniques and others, she has made important advances in a wide range of problems from biology and medicine, including circadian rhythm, unfolded protein response, cell polarization, and coagulopathy.

Named the UCSB Faculty Research Lecturer for 2011, Petzold was awarded the SIAM/ACM Prize for Computational Science and Engineering in 2013, received an honorary doctorate from Uppsala University, Sweden, in 2015, and was awarded the SIAM Prize for Distinguished Service in 2016.

The Sidney Fernbach award consists of a certificate and a US$2,000 honorarium. The award was presented at the International Conference for High Performance Computing, Networking, Storage, and Analysis (SC18) in Dallas, Texas, on 13 November 2018. [C]