

## EDITORS IN CHIEF

**Sigeru Omatu**

*Osaka Institute of Technology*

**Juan M. Corchado**

*University of Salamanca*

## EDITORIAL ASSISTANT

**Sara Rodríguez González**

*University of Salamanca*

**Inés Sitton Candanedo**

*University of Salamanca, Spain*

**Roberto Casado Vara**

*University of Salamanca*

**Elena Hernández Nieves**

*University of Salamanca*

## ASSOCIATE EDITORS

**Andrew CAMPBELL**, *Dartmouth College, Hanover, United States*

**Ajith ABRAHAM**, *Norwegian University of Science and Technology, Norge, Norway*

**James LLINA**, *State University of New York, New York, United States*

**Andre PONCE DE LEON F. DE CARVALHO**, *Universidade do Sao Paulo, Sao Paulo, Brazil*

**Juan PAVÓN**, *Universidad Complutense de Madrid, Madrid, Spain*

**José Manuel MOLINA**, *Universidad Carlos III de Madrid, Madrid, Spain*

**Kasper HALLENBORG**, *Syddansk Universitet, Odense M, Denmark*

**Tiancheng LI**, *Universidad de Salamanca, Salamanca, Spain*

**eISBN: 2255-2863**

**Volume 9, number 2**

**BISITE Research Group**

**Universidad de Salamanca, 2020**

## SCIENTIFIC COMMITTEE

**Choong Yeun LIONG**, *University Kebangsaan Malaysia, Bangi, Malaysia*  
**Cristian Iván PINZÓN TREJOS**, *Universidad Tecnológica de Panamá, Panamá, Panama*

**Eloi BOSSE**, *Université Laval, Québec, Canada*

**Yves DEMAZEAU**, *Laboratoire d'Informatique de Grenoble, Grenoble, France*

**Estevam HRUSCHKA**, *Universidade Federal de São Carlos, Sorocaba, Brazil*

**Eugenio OLIVEIRA**, *Universidade do Porto, Porto, Portugal*

**Flavia DELICATO**, *Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*

**Florentino Fdez-Riverola**, *Universidade de Vigo, Spain*

**Goreti MARREIROS**, *Universidade Politecnica do Porto, Porto, Portugal*

**Habib FARDOUM**, *Universidad de Castilla-La Mancha, Ciudad Real, Spain*

**Jaderick PABICO**, *University of the Philippines Los Baños, Laguna, Philippines*

**Jairo Vélez BEDOYA**, *University of Caldas (Colombia)*

**Joao GAMA**, *Universidade do Porto, Porto, Portugal*

**Kazumi NAKAMATSU**, *University of Hyogo, Hyogo, Japan*

**Kazutoshi FUJIKAWA**, *Nara Institute of Science and Technology, Nara, Japan*

**Luis LIMA**, *Universidade Politecnica do Porto, Porto, Portugal*

**Luis CORREIA**, *Universidade do Lisboa, Lisbon, Portugal*

**Maruthi Rohit AYYAGA RI**, *University of Dallas (USA)*

**Paulo NOVAIS**, *Universidade do Minho, Braga, Portugal*

**Pawel PAWLEWSKI**, *Poznan University of Technology, Poznan, Poland*

**Philippe MATHIEU**, *Université Lille, Lille, France*

**Radel BEN-AV**, *Jerusalem College of Engineering, Jerusalem, Israel*

**Radu-Daniel VATAVU**, *Stefan cel Mare University, Suceava, Romania*

**Ricardo COSTA**, *Universidade Politecnica do Porto, Porto, Portugal*

**Rui JOSÉ**, *Universidade do Minho, Braga, Portugal*

**Roberto CASADO**, *University of Salamanca*

**S.P. Raja**, *R&D Institute of Sci. and Technology, Chennai (India)*

**Seyedsaeid MIRKAMALI**, *University of Mysore, Mysuru, India*

**Subrata DAS**, *Machine Analytics, Inc., Boston, United States*

**Sumit GOYAL**, *National Dairy Research Institute, Karnal, India*

**Soon Ae CHUNCITY**, *University of New York, New York, United States*

**Sylvain GIROUX**, *Université de Sherbrooke, Sherbrooke, Canada*

**Swati NAMDEV**, *Career College, Bhopal, India*

**Tina BALKE**, *University of Surrey, Guildford, United Kingdom*

**Veikko IKONEN**, *Teknologian tutkimuskeskus VTT, Espoo, Finland*

**Vicente JULIÁN**, *Universidad Politécnica de Valencia, Valencia, Spain*

**Yi FANG**, *Purdue University, Lafayette, United States*

**Zbigniew PASEK**, *IMSE/University of Windsor, Windsor, Canada*

**Giancarlo FORTINO**, *Università della Calabria, Arcavacata, Italy*

**Amparo ALONSO BETANZOS**, *Universidad de A Coruña, A Coruña, Spain*

**Franco ZAMBONELLI**, *Università de Modena e Reggio Emilia, Modena, Italy*

**Rafael CORCHUELO**, *Universidad de Sevilla, Sevilla, Spain*

**Michael N. HUHNS**, *University of South Carolina, Columbia, United States*

**Stefano CORALUPPI**, *Compunetix, Inc., Monroeville, United States*

**Javier PRIETO TEJEDOR**, *Universidad de Salamanca, Salamanca, Spain*

**Yeray MEZQUITA**, *University of Salamanca, Spain*

**David GARCÍA**, *University of Salamanca, Spain*

**Ricardo SILVEIRA**, *Universidade Federal de Santa Catarina, Brazil*

**Ricardo S. ALONSO**, *Universidad de Salamanca, Salamanca, Spain*

**José Luis POZA**, *Universitat Politècnica de València, Spain*

**Ankur SINGH BIST**, *Sri Venkateswara University, India*



ADVANCES IN DISTRIBUTED COMPUTING AND ARTIFICIAL INTELLIGENCE

<https://adcaij.usal.es>