



Paulo E. Cruvinel was born in São Sebastião do Paraíso, Minas Gerais, Brazil. He is a senior researcher of the Brazilian Corporation for Agricultural Research (Embrapa) and also actuate as Invited Professor at the Post-Graduation Programs of the Federal University of São Carlos (UFSCar) and University of São Paulo (USP), i.e., respectively in Computer Sciences, Physics, and Electrical Engineering areas. The UFSCar is a public institution, linked to the Ministry of Education (MEC) of Brazil and holds the highest ratio among all other federal institutions in the country. The USP is also public university and one of the country's most prestigious educational institutions, considered as the best university in Ibero-America. He

also actuated as an Invited Collaborative Professor at the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, collaborating with the Colleges in Medical Physics (1990, 1992, 1994), and the College in Soil Physics (1993,1994). The ICTP is mainly supported by the United Nations Educational Scientific and Cultural Organization (UNESCO) and the International Atomic Energy Agency (IAEA), and it has been a driving force behind global efforts to advance scientific expertise in the developing world. Cruvinel received in 1980 the title of Engineer in the Faculty of Engineering of Barretos, in both modalities Electrotechnics and Electronics. He got the Master Science Degree in Bioengineering (1984) for his work in intelligent instrumentation for radiation dosimetry of X and  $\gamma$ -rays based on the cylindrical electret ionization chamber, and the Ph.D. Degree in Automation (1987) for his work in computerized X-ray tomograph for applications in soil science, both at the University of Campinas (UNICAMP), SP, Brazil. He developed a Postdoctoral Program (1988) at the *Centro per Ingegneria Biomedica e Cattedra di Fisica, Università degli Studi di Roma La Sapienza*, Rome, Italy, and also a second Postdoctoral Program (1990 and 1991) in the Crocker Nuclear Laboratory in collaboration with the Department of Land, Air, and Water Resources at University of California, Davis, USA. This research programme was supported by the National Counsel of Technological and Scientific Development (CNPq) from the Human Resources Program in Strategic Areas (RHAE). Besides, also in 1984, he participated in the group of pioneers of the Embrapa Instrumentation. In his career he received several awards and honors, such as, the Diploma of Merit from the Brazilian Institute Engineering (1980), the Excellence in Technical and Scientific Category (1997) and Outstanding Researcher (2005) both from the Brazilian Agricultural Research Corporation; Diploma of Honor from The Educational Foundation of Barretos (1996); Honorary Citizen of Barretos (1996), Diploma Award as the Brazilian Agriculture Personality of the year 2000 from the Engineers' Union in the State of São Paulo; Honorary Citizen of São Carlos (2003); Plate from the Crocker Nuclear Laboratory (USA) in acknowledgement of his scientific cooperation (1991), among others. Cruvinel's research interests now focused on study and development of sensors, metering processes, physics applied to agriculture, intelligent systems, image processing, systems modelling, complex networks, knowledge systems, semantic computing and automation in agriculture. From 1998 to 2002 he actuated as General Director of Embrapa Instrumentation and President of the Technical Committee of the National Agricultural Automation Program. From 2012 to 2014 he actuated in Brasília, the capital of Brazil, as the Head of the Strategic Management Secretariat of Embrapa. Also he was the first Secretary of the Agribusiness Sector Fund with the Center for Technical Management and Strategic Studies (CGEE), working with the Ministry of Science, Technology and Innovation (MCTI) in Brazil. He is member of the Institute of Electrical and Electronics Engineers (IEEE), the Brazilian Computer Society (SBC). He is also member of the Trustees Board of the High Technology Science Park Foundation of São Carlos, member of the Technology Council of the Engineering Union of the State of

São Paulo, Visiting Researcher of the Institute for Advanced Studies of the University of São Paulo (USP) and current President of the Brazilian Society of Agricultural Engineering. Cruvinel has been involved in the International Academy, Research, and Industry Association (IARIA) Conferences since 2015. He has presented contribution in the Sixth International Conference on Sensor Device Technologies and Applications (SENSORDEVICES, 2015) related to the development of an intelligent sensor mounted near the sprayer nozzles to measure the concentration response time in an herbicide direct injection system. Also, he contributes as a member of the Advisory Committee in the First International Conference on Advances in Sensors, Actuators, Metering and Sensing (ALLSENSORS, 2016), including not only the presentation of a paper related with an advanced arrangement based on a dedicated computer and charge-coupled device (CCD) sensor system to allow the counting and recognition of bacteria colony formation, but also as a Panelist in the session related to geoprocessing, sensors, digital society and eGovernments. In these Conferences, papers presented have received the Best Paper Award. As IARIA Fellow, he seek to support the organization in find solutions for the industry of agriculture, i.e., in how to aggregate value in the near future in order to be collaborative for food security and food safe in the world. Therefore, regarding to such matter, he intend to consider the concept of networks, connectivity, and interdisciplinarity based on research, development and innovation to reach productivity with sustainability, as well as to improve the educational level, wealth, and the socio-environmental conditions of the world society.