Benjamin Franklin once quipped, “an investment in knowledge pays the best interest.” Each year, the IEEE Robotics and Automation Society (RAS) invests up to US$75,000 into technical education programs (TEPs), formerly known as summer schools, to promote the spread of knowledge and cultivation of new ideas in robotics. Through the years, topics have ranged from human–robot interaction to multirobot systems, and each has provided a one-of-a-kind opportunity to new members of RAS. In this column, we relay what shapes a high-quality TEP and present the three TEPs selected for funding in 2019.

RAS TEPs
TEPs are rewarding endeavors that yield increased RAS involvement and improve the technical prowess of Society members. The key quality for these educational opportunities is a focused, hands-on learning experience led by the foremost experts in a field. Typically, the programs combine lecture sessions with open-ended projects to reinforce the skills taught. They also offer a unique networking opportunity allowing novice researchers to interact with their peers and build lifelong professional relationships.

Each of the accepted TEPs was rigorously reviewed based upon its technical merit, organization, and proposed budget. Nine reviewers (including the authors of this article) joined together to select a highly valuable educational experience within each geographic region for the members of RAS.

The TEPs for 2019
The TEP selected for geographic area 1 (North and South America) is the IEEE RAS Summer School on Deep Learning for Robot Vision and will take place in Santiago, Chile. The summer school will be the seventh Latin American TEP on robotics and the second RAS TEP organized in Chile. Its focus is to provide an overview of deep-learning approaches in state-of-the-art robotics research and their application to robot vision, visual servoing and localization, and robot manipulation. The TEP will be organized by Javier Ruiz del Solar and Rodrigo Verschae in conjunction with the Advanced Mining Technology Center at the University of Chile, Santiago, and the Institute of Engineering Science at the Universidad de O’Higgins, Rancagua, Chile.

In geographic area 2 (Europe, Africa, and Middle Eastern Asia), the TEP Rehabilitation and Assistive Technologies Based on Soft Robotics will be held in Rome, Italy. This program is an interdisciplinary event combining research students in both medicine and robotics. Robotics research students will benefit from learning clinical processes on rehabilitation, and medical researchers will grow from exploring the engineering process for creating technologies. Specifically, the focus of the event will be in soft robotics. This educational experience will be coorganized by Eugenio Guglielmelli, Loredana Zollo, Stefano Mazzoleni, Michelle J. Johnson, Yasuhisa Hirata, and Cecilia Laschi.

For geographic area 3 (Asia and the Pacific Rim), the TEP Social and Artificial Intelligence for User-Friendly Robots will be hosted in Japan. This educational event focuses on artificial intelligence and machine-learning methods in settings appropriate for social robots interacting in human environments. The program will also discuss how to acquire funding for research, which is a valuable skill for the future career paths of many students. This TEP will take place following the ACM/IEEE International Conference on Human–Robot Interaction in South Korea to allow easy access for attendees. It is organized by Amir Aly, Shashank Pathak, Verena Nitsch, Sascha Griffiths, and Nicole Carey.

Investing in Education
Every year, the TEP selection process grows more competitive. The committee strives to select the best educational opportunities for RAS members. For details on past and present TEPs or to propose a new TEP for the upcoming year, please visit http://www.ieee-ras.org/educational-resources-outreach/summer-schools.

The RAS very wisely invests in the continued education of its members, and we are excited to witness the outcomes of these upcoming TEPs!