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Introduction

We are pleased to welcome you to the Thirteenth International Conference on Quality Control by Artificial Vision (QCAV2017). As you know, QCAV started in 1993 at Le Creusot, France, and this year the thirteenth QCAV Conference is in Tokyo, Japan. This is the fourth time QCAV has been in Japan. The first was in Kagawa in 1998, then Nagoya in 2005, and later Fukuoka in 2013.

The objective of the QCAV2017 Conference remains the same as the previous ones: to provide a forum for researchers, engineers, suppliers, and users of vision systems to present and discuss the state-of-the-art developments in machine and computer vision and image processing techniques, with an emphasis on quality control.

This proceedings volume contains forty-six reviewed papers selected from fifty-two submitted papers. All presentations are oral and in a single track. We believe this makes the conference more unified and helps produce deep and intensive discussions on the presented papers.

Moreover, we are proud to have three fabulous plenary talks:

- Prof. Mohit Gupta (University of Wisconsin-Madison): *Towards Next Generation 3D Cameras.*
- Prof. Stéphane Canu (INSA de Rouen, Normandie Université): *Machine Learning, Deep Learning and Optimization in Computer Vision.*
- Dr. Yukiyasu Domae (Mitsubishi Electric Corporation): *Machine Vision for Various Manipulation Tasks.*

We really appreciate the plenary speakers for sharing their cutting-edge research and development results with us.

We would like to thank The Technical Committee on Industrial Application of Image Processing (IAIP) and The Japan Society for Precision Engineering for sponsoring QCAV2017. In addition, we also would like to thank the ten organizations that contributed to the conference as technical sponsors.

We hope all attendees enjoy not only the conference itself, but also Tokyo, one of the largest megalopolises in the world and the venue of next summer Olympic Games in 2020.

QCAV2017 Organizing Committee