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| **Call For Papers**  The objective of this workshop is to highlight cutting edge advances and state-of-the-art work being made in the exponentially growing field of PBVS (previously OTCBVS) along its three main axes: Algorithms, Sensors Processing, and Applications. This field involves deep theoretical research in sub-areas of image processing, machine vision, pattern recognition, machine learning, robotics, and augmented reality within and beyond the visible spectrum. It also presents a suitable framework for building solid advanced vision based systems.  The computer vision community has typically focused mostly on the development of vision algorithms for object detection, tracking, and classification associated with visible range sensors in day and office-like environments. In the last decade, infrared (IR), depth, IMU, thermal and other non-visible imaging sensors were used only in special areas like medicine and defense. That relatively lower interest level in those sensory in computer vision was due in part to their high cost, low resolutions, poor image quality, lack of widely available data sets, and/or lack of consideration of the potential advantages of the non-visible part of the spectrum. These historical objections are becoming less relevant as sensory technology is advancing rapidly and the sensor cost is dropping dramatically. Image sensing devices with high dynamic range and high IR sensitivity have started to appear in a growing number of applications ranging from defense and automotive domains to home and office security. In addition, mobile hyperspectral and mm-wave sensors are also coming into existence.  In order to develop robust and accurate vision-based systems that operate in and beyond the visible spectrum, not only existing methods and algorithms originally developed for the visible range should be improved and adapted, but also entirely new algorithms that consider the potential advantages of non-visible ranges are certainly required. The fusion of visible and non-visible ranges, like radar and IR images, depth images or IMU information, or thermal and visible spectrum images as well as acoustic images, is another dimension to explore for higher performance of vision-based systems. The non-visible light is widely employed in night vision-based systems, and many detection and recognition systems available today in the market are relying on physiological phenomena produced by IR and thermal wavelengths. Using artificially controlled lights is a practical solution to eliminate challenging ambient light effects. In active imaging for example, near or short-wave IR laser illumination can even be utilized to see through dust or fog.  This 14th IEEE CVPR WS on Perception Beyond the Visible Spectrum (PBVS’2018) creates connections between communities in the machine vision world ranging from public research institutes to private, defense, and federal laboratories. It brings together academic pioneers, industrial and defense researchers and engineers in the field of computer vision, image analysis, pattern recognition, machine learning, signal processing, sensors, and human-computer interaction. | **Organization**  *Organizer and Program Chair*  **Dr. Riad I. Hammoud** BAE Systems, USA  *Program Co-Chair*  **Dr. Michael Teutsch**  Hensoldt Optronics, Germany  *Publication Chair*  **Dr. Yi Ding**  Gemalto, USA  *Advisory Committees*  **Dr. Erik Blasch**  Air Force Research Lab, USA  **Dr. Firooz Sadjadi**  Lockheed Martin Corp, USA  **Prof Guoliang Fan** Oklahoma State University, USA  **Prof Haibin Ling** Temple University, USA  **Dr. Behzad Kamgar-Parsi**  Office of Naval Research, USA  *Keynote Speakers*  **TBD** |
| **Important Dates**   * Paper Submission: **TBD** * Author Notification: **TBD** * Camera Ready: **TBD** * PBVS Workshop: **TBD** |
| **Topics of Interests** | |
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