This course will focus on the role of technologies in improving sport performance, athletes’ safety and spectators’ enjoyability. Physiological parameters monitoring, performance analytics and advanced materials for sports will be explored. Examples will be given to show the state of the art as well as some potential future directions of selected technologies to enhance athletes performance, to prevent injuries and to transform sport into a ‘connected experience’ for a global audience. Attendees will be asked to analyse current sport specific challenges and to develop their technological solutions.