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Sommario/riassunto	<p>This Special Issue on advanced sensor technologies contains contributions on the latest developments in mobile robotic systems and related research. Various topics with different ideas and applications from mobile robotics have found their place. New ideas are presented for mobile robots that specialise in cleaning floors, power lines and HVAC systems. We also find innovative approaches for navigation path planning using local minima-free potential fields, novel path primitives and/or their parameterisation for minimum-time planning, and various control approaches ranging from visual serving to model predictive and adaptive trajectory tracking, applied to wheeled robots, humanoid manipulators and flying robots. Localisation approaches using LiDAR, motion capture systems, fingerprint-based and biomechanical gait systems are also discussed. In addition to advances in methodology, applications in healthcare, mining tunnels, cleaning, warehouses and other areas are mentioned.</p>