



## SMASH – Smart Mobile ASsistants in the Home/Hospital

### Objectives:

- Develop methodologies for advancing human-robot cooperation in human intensive environment
- Develop Human-robot learning algorithms
- Develop an intelligent “well being” software to support operations in the assistance of patient recovery in the home environment

## BGU University – department of Industrial Engineering and Management

- Ben-Gurion University is a major center for teaching and research, with over 17,000 students
- IEM is a leading faculty expertise in human factors and robotics
- Advanced robotics laboratories: robotics, tele-robotics, mobile robotics, intelligent systems engineering
- Advanced human factors laboratories: cognitive engineering, human computer interfaces, driving safety, physiological measurements, eye tracking

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## STREP – Partners Needed

We are looking for Industrial partners or SMEs for application domains and technology development expertise:

### Application domains

- Telemedicine and nursing
- Assistive robotic technologies for the aging and disabled

### Technology development:

- Voice recognition technology
- Robot sensors
- Mobile robot technologies



## MASOT – Multi-Autonomous System for Outdoor Tasks

### Objectives

- To research, develop and demonstrate the capabilities of cooperative robotic technologies for outdoor industrial platforms
- The cooperative robotic technologies developed will be applied to the labor – intensive and environmental problem of cleaning. The envisaged scenarios are:
  - Cleaning of streets and sidewalks
  - Cleaning of beaches and sidewalks
  - Cleaning snow on streets (on ski slopes)

### BGU University – The Laboratory for Autonomous Robotics (LAR)

- LAR was founded in 1998 to provide know-how on the area of autonomous robotics.
- Researches of three departments: Electrical and Computer engineering, Mechanical Engineering and Industrial Engineering and Management
- System Architecture, Sensors (Video, Sonar, Inertial, LADAR, GPS)
- Image Processing, Sensor Fusion, Vehicle control, Path planning and obstacle avoidance, System Integration, Wearable Computers, MMI, communications and Platform design

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## Partners needed

- University specialized in robot control (robotic)
- University specialized in Sensors and Image processing or Network Communications
- Industry Producing outdoor equipment
- SME specialized in Navigation Sensors/Systems
- Municipality (end-user)