Performance Evaluation of systems for hidden threat detection



The detection of improvised explosive devices (IEDs) and landmines is a critical capability that enhances force protection and increases the survivability of military personnel. In addition to ongoing efforts to advance detection technologies within four EU-funded participating technological challenge projects (DeterMine, AIDEDex, CONVOY, and TICHE), a fifth initiative, the HiTDOC project, focuses on the organization of the technological challenge and development of standardized test procedures and methodologies for the objective evaluation of those four system solutions. HiTDOC conducts an annual Hidden Threat Detection Challenge trial, providing an environment to rigorously assess threat detection systems against realistic targets and scenarios relevant to military operations.

The second trial of the EDF Hidden Threat Detection Challenge took place from 22–26 September at the FOI facility in Grindsjön, Sweden. During this event, systems were evaluated against a range of buried threat targets and a route clearance scenario. Notable technical advancements were observed compared to the first year's trial, though substantial progress remains necessary to achieve fully autonomous systems with real time detection capabilities. The data collected during the trial will support further development efforts by the four participating teams. Both HiTDOC and the participants gained valuable insights from this experience. This field test has helped HiTDOC to further develop objective evaluation protocols enabling to measure system performances in a comparable way.





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