

List of publications

Journal papers

B. Scheers, "Ground penetrating radar for antipersonnel mine detection," *Revue HF*, no. 3, pp. 25-33, 1998.

B. Scheers, M. Acheroy and A. Vander Vorst, "Time domain simulation and characterisation of TEM horns using normalised impulse response," *IEE Proceedings - Microwaves, Antennas and Propagation*, vol. 147, no. 6, pp. 463-468, Dec. 2000.

Conference papers

B. Scheers and M. Piette, "Short-pulse response of antipersonnel landmines to UWB GPR signals," *Seventh International Conference on Ground Penetrating Radar*, Kansas, USA, pp. 337-341, May 1998.

B. Scheers, M. Piette and A. Vander Vorst, "The detection of AP mines using UWB GPR," *IEE Second International Conference on the Detection of Abandoned Land Mines*, Edinburgh, UK, pp. 50-54, Oct. 1998.

B. Scheers, "Development of a laboratory UWB GPR system for mine detection," *HUDEM Symposium*, Brussels, BE, April 1999.

N. Milisavljevic, B. Scheers, Y. Yvinec and M. Acheroy, "3D visualisation of data acquired by laboratory UWB GPR in the scope of mine detection," *Mine'99, Proc. of EUROCONFERENCE ON: Sensor systems and signal processing techniques applied to the detection of mines and unexploded ordnance*, Florence, IT, pp. 149-154, 1999.

N. Milisavljevic, B. Scheers and Y. Yvinec, "Laboratory UWB GPR for 3D data acquisition and shape extraction of AP landmines," *PHOTOMECH'99-ETE'99*, European Workshop, Hotel Bedford, Liège, BE, pp. 65-70, Nov. 1999.

B. Scheers, M. Piette and A. Vander Vorst, "Development of dielectric-filled TEM horn antennas for UWB GPR," *Millennium Conference on Antennas & Propagation AP-2000*, Davos, Switzerland, vol. II, p. 187, April 2000.

B. Scheers, Y. Plasman, M. Piette, M. Acheroy and A. Vander Vorst, "Laboratory UWB GPR system for landmine detection," *Eight International Conference on Ground Penetrating Radar*, Gold Coast, Australia, pp. 747-752, May 2000.

B. Scheers, M. Acheroy, A. Vander Vorst, "Time domain modelling of UWB GPR and its application on landmine detection", *Proceedings of SPIE, Detection and Remediation Technologies for Mines and Minelike Targets V*, Orlando, USA, vol. 4038 II, pp.1452-1460, Apr. 2000.

Poster sessions and presentations at workshops

N. Milisavljevic, B. Scheers, O. Thonnard and M. Acheroy, "Current contribution of the RMA/SIC to the HUDEM project," Poster for Second International Symposium on Operationalization of remote sensing, ITC Enschede, NL, 1999.

WEU, CEPA 1, "Ground Penetrating Radar for use in Demining," Rome, IT, Jan. 2000.

European Commission, Joint Research Centre, "Research on Demining Technologies," Joint Workshop, Ispra, IT, July 2000.

B. Scheers, M. Acheroy and A. Vander Vorst, "Time modelling and signal processing for UWB GPR in close-in mine detection," EuMW workshop and short courses, WS2, Paris, FR, Oct. 2000.

Related projects

Joint Multi-sensor Mine Signature Measurement Campaign (MsMs). The aim of the project is to provide the researchers and developers with multi-sensor data of mines and objects laid out in different soil types. Therefore, a first measurement campaign was held at the test minefield at the European Commission's Joint Research Centre in Ispra, Italy at the end of 2000. All national research centres were (and still are) invited to participate with the measuring campaign. The multi-sensor data is made freely available through the web.

The author developed for this project a positioning target. The positioning target will be placed in the minefield and is specially designed so that it can be detected by all the sensors (metal detector, GPR, IR camera and microwave radiometer). The positioning target will serve as the basis for the co-registration of the data recorded by different sensors.

