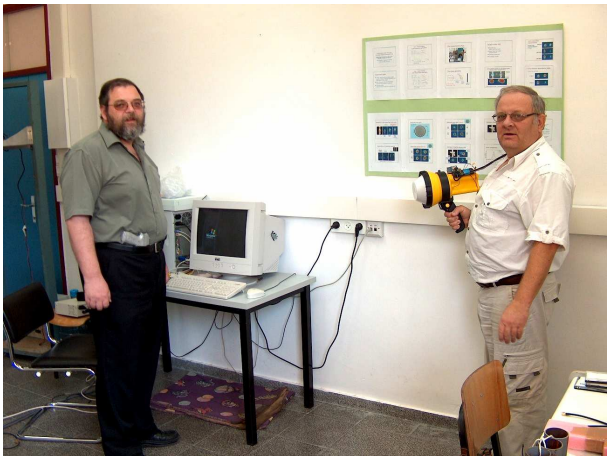
Prof. Boris Kapilevich, Dr. Moshe Einat

PORTABLE SENSOR OF HIDDEN NON-METALLIC WEAPON AND EXPLOSIVES: FROM CONCEPT TO REALIZATION

We have developed a sensor prototype based on mm-wave scattering properties of all objects, both metallic and non-metallic. It consists of small receiving and transmitting antennas and a specially designed mm-wave modulator providing audio registration of hidden objects.



As the sensor is manually passed over the subject, any concealed objects cause a change in the reflected mm-wave signal, which, in turn, causes a change in the sensor's audio output, alarming the user. Transmitted power is about 1 mW and not harmful to human body.