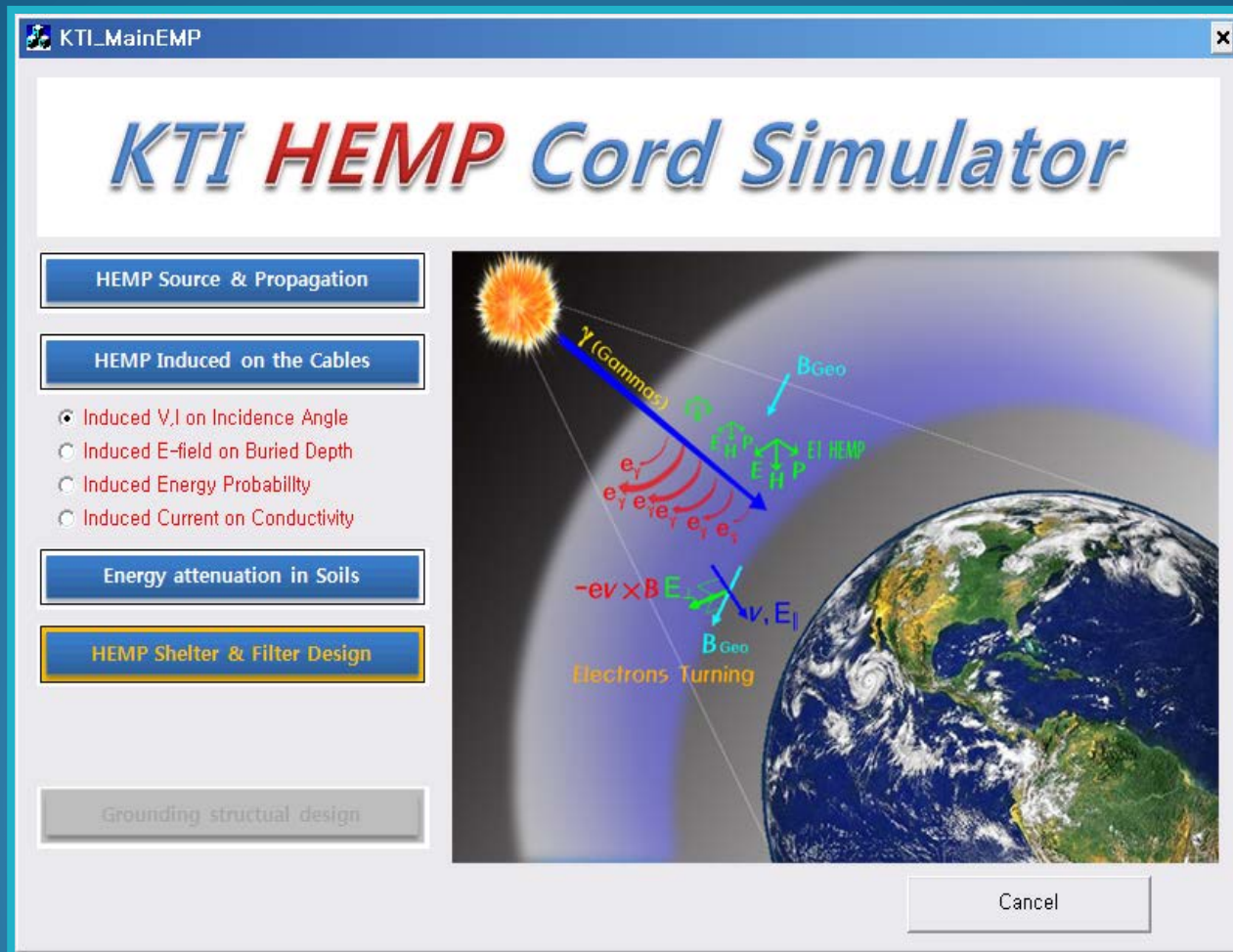


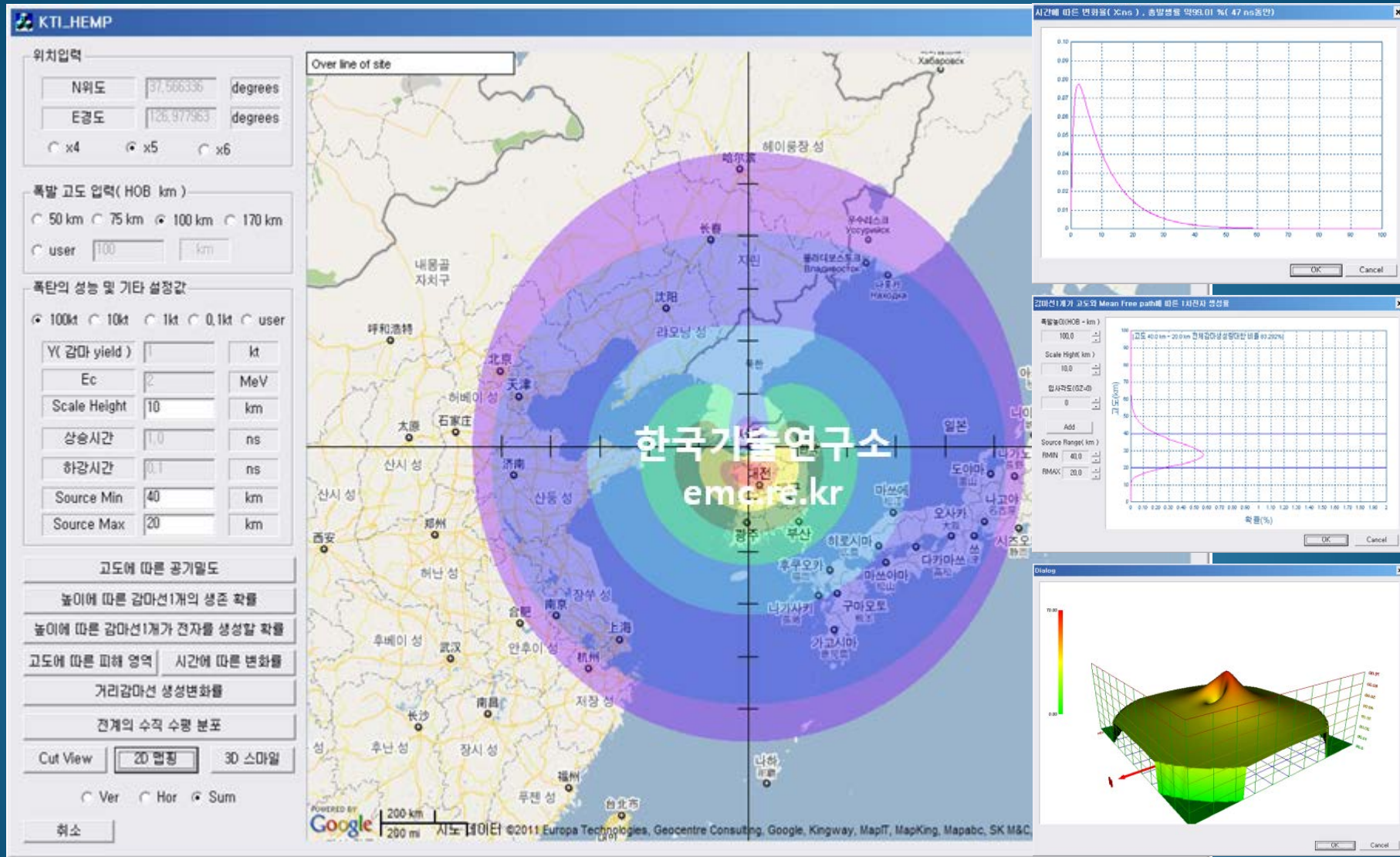
# KTI HEMP Cord simulator



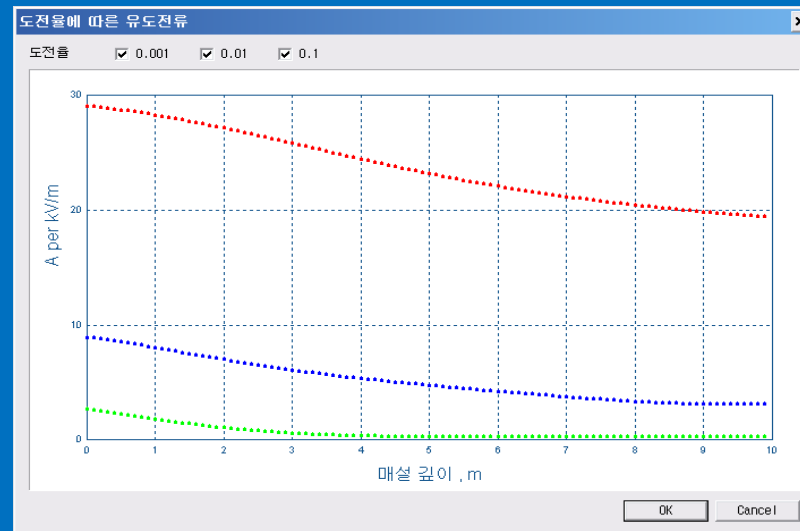
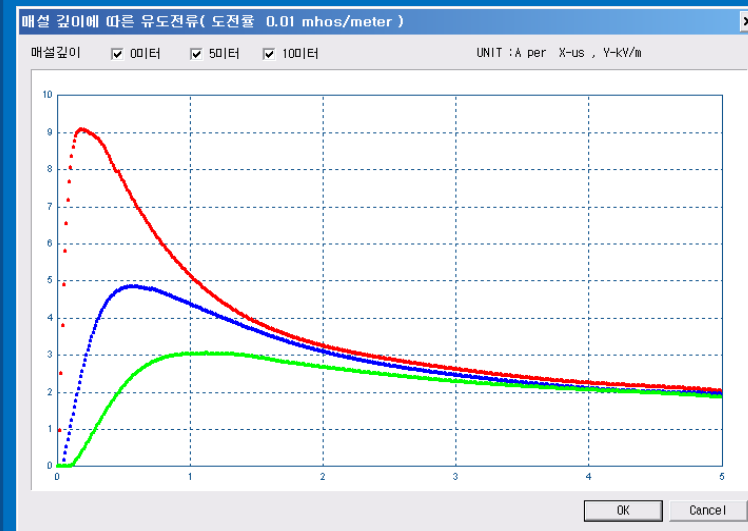
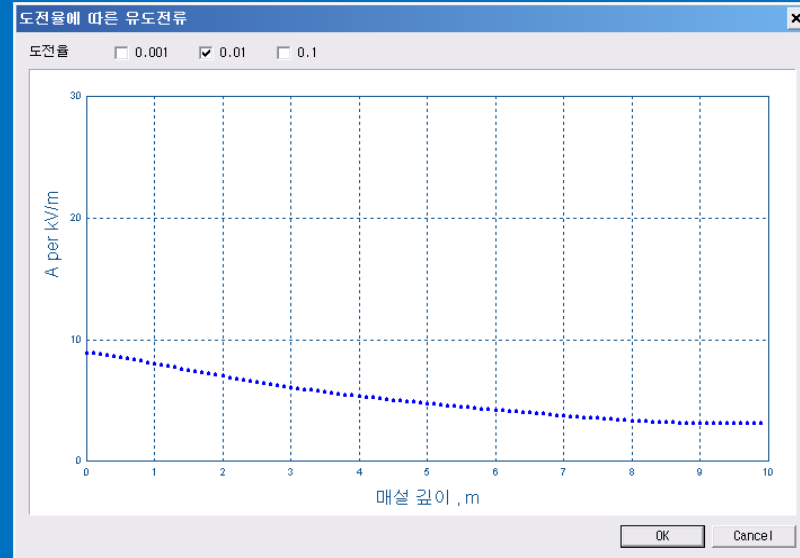
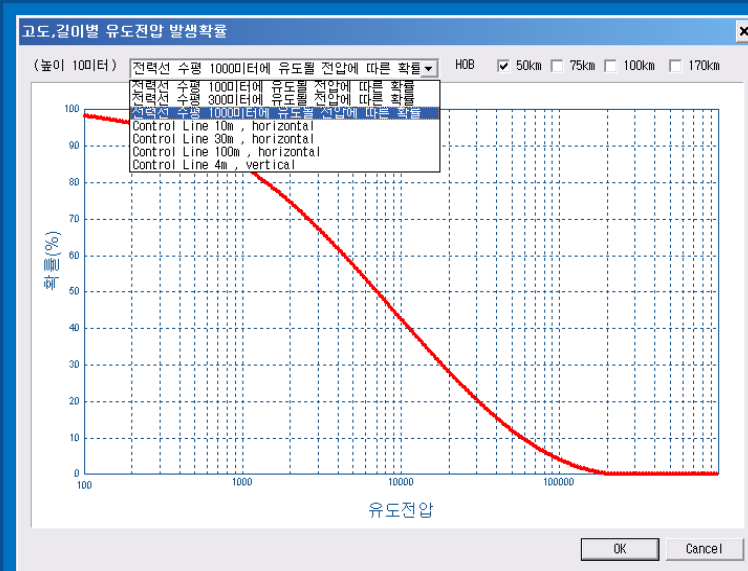
# 1. KTI's HEMP CORD SIMULATOR

No	Tool Functions	Descriptions and applications
I	HEMP Source & propagation analysis	<ul style="list-style-type: none"> <li>- Vertical and horizontal Electric Field Simulation depend upon the Nuclear bomb weight, Altitude, latitude, Earth magnetic field strength, Scale height, Gamma survival possibility, HOB and etc.</li> <li>- Electric field mapping functions as a vertical, horizontal and its sum.</li> <li>- 2D and 3D display.</li> </ul>
II	Analysis of the HEMP induced on the Cables	<ul style="list-style-type: none"> <li>- Induced current and voltage depend on the incident angle and cable layout.</li> <li>- Induced current calculation depending on the buried soil depth.</li> <li>- Induced voltage possibility depend on the HOB and buried soil depth.</li> <li>- Induced current variation depend on the buried depth and conductivity.</li> </ul>
III	Analysis of the EM energy attenuation in the multilayer soils and rocks	<ul style="list-style-type: none"> <li>- Computer simulation of EM energy attenuation in the multilayer soils and rocks.</li> <li>- Very high accuracy for computer simulation using <a href="#">a statistical least square methods</a>.</li> <li>- EM energy attenuation calculation using a actual test results in the various soils and rocks.</li> </ul>
IV	HEMP Shelter Design Tool	<ul style="list-style-type: none"> <li>- Shielding effectiveness calculation depend on the material constant.</li> <li>- Computer simulation of shielding effectiveness for PAN, PANEL and welding type.</li> <li>- Computer simulation for various honeycomb dimension and shape.</li> <li>- <a href="#">Simulation result is very well corresponded with an actual field test.</a></li> </ul>
V	HEMP Filter Design Tool	<ul style="list-style-type: none"> <li>- HEMP power lines, voice/data, control line filter and LPF design tool.</li> <li>- Fully considering on the RF stray capacitance, inductance, contact resistance and load impedance.</li> </ul>

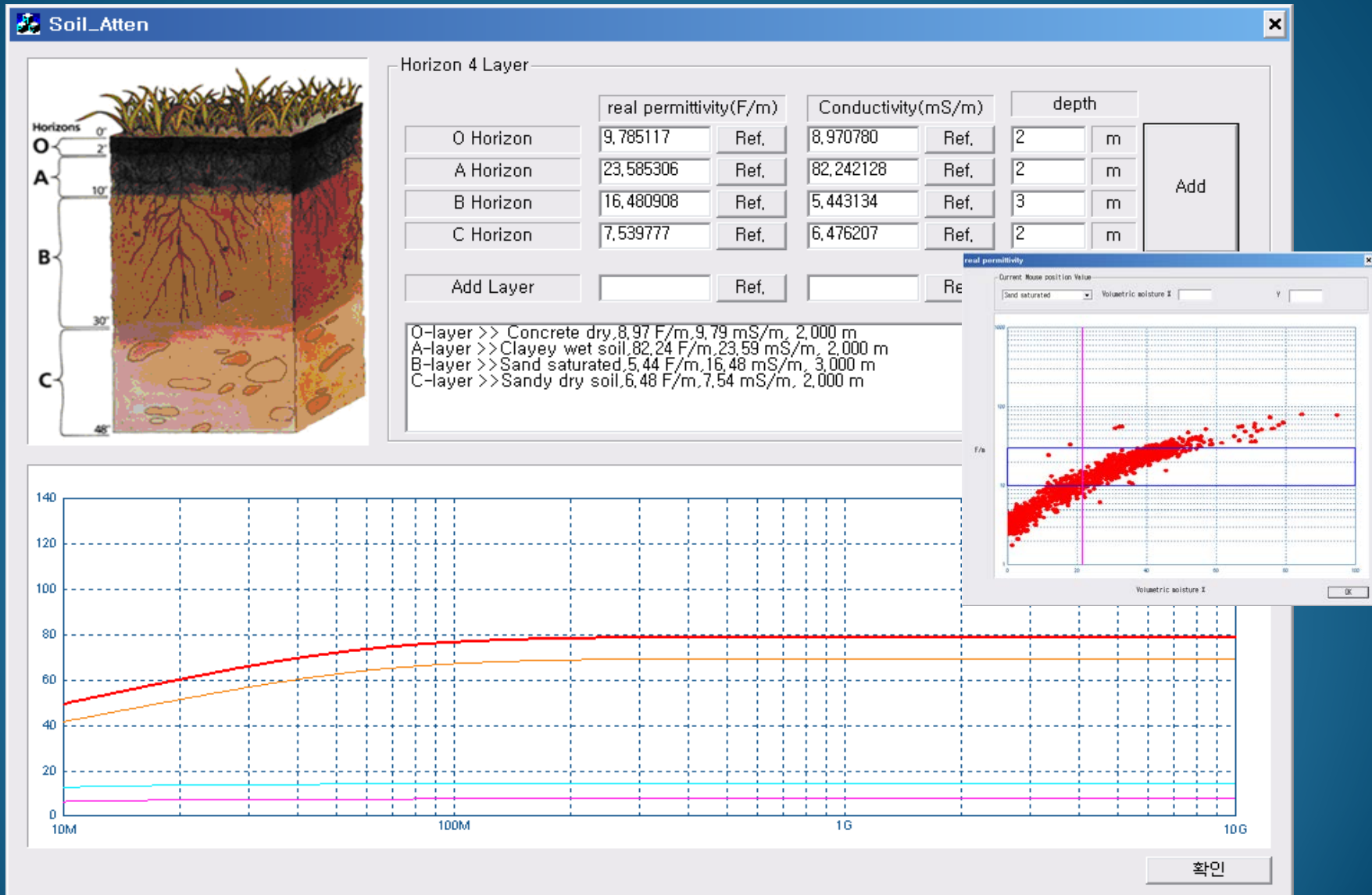
## 2. Computer Simulation Tools of the HEMP Burst and Propagation



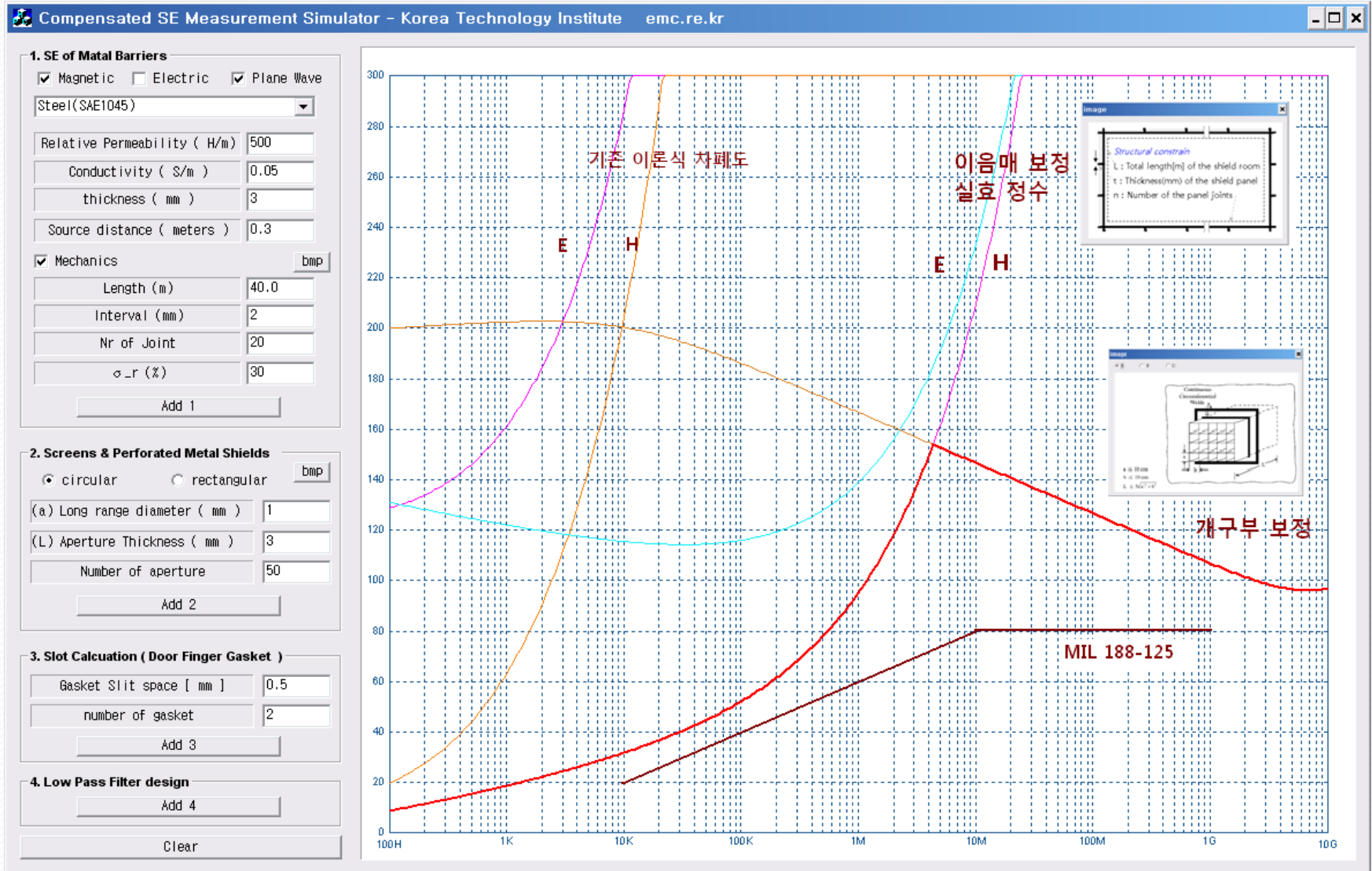
### 3. HEMP Induced Current and Voltage Simulation in the Buried Lines



## 4. Analysis of the EM energy Attenuation in the Multilayer Soils and Rocks

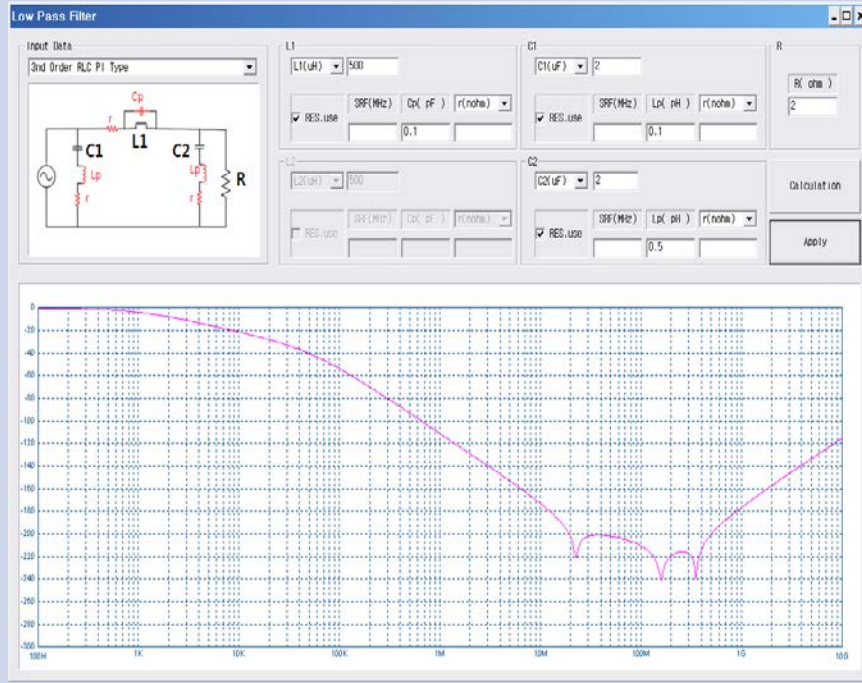


# 5. HEMP Shelter Design Tool

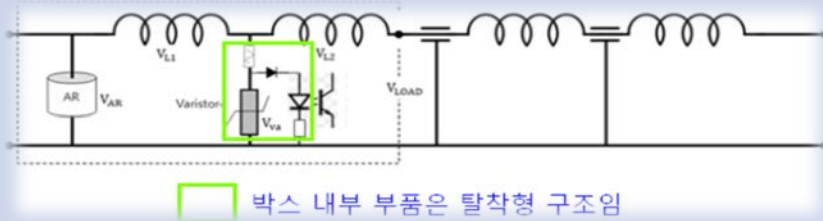


# 6. HEMP Filter Design Tool

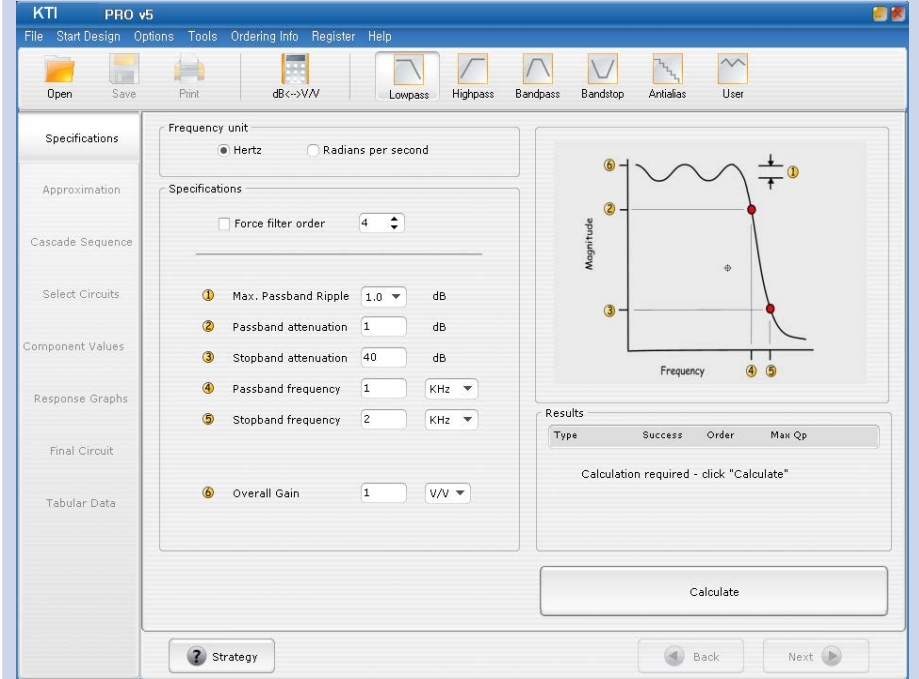
HEMP filter design tool for power & signal lines



MOV detachable HEMP filter/ patent



Voice and data lines filter design



Impedance adjustable signal line filter

