

# ASONIKA: ART OF COMPLEX MODELING OF PHYSICAL PROCESSES IN ELECTRONIC EQUIPMENT

**Profs. Alexander Shalumov and Nikolay Malyutin**

<http://www.asonika-online.ru>

<http://rustec.asu.edu/>

The computer program ASONIKA is developed for design and testing of thermal and mechanical stability and reliability of radio-electronics devices. Computational grid models implement macroscopic equations for heat transfer and mechanical forces in combination with 3D graphical interface, which allows for the design of complex devices and equipment (set of connected radio-electronic devices). ASONIKA is based on CALS (Continuous Acquisition and Life cycle Support) technology, and consists of series of modules that can exchange data via a common interface. Each module can operate as independent computer program designated for solving the special tasks related to the device design and computing its properties. Each module has its own data base of materials, which can be expanded and modified in a dialogue mode.

Date	Lecture	Time & Location
Oct 13	Designing Electronic Equipment & Managing Electronic Models: Design of Automation Systems in Russia	3:00 to 5:00 pm (GWC487)
Oct 14	ASONIKA: Thermal & Mechanical Models. Automated Analysis for Non-Failure Operation	3:00 to 5:00 pm (ERC490)
Oct 17	Stability Analysis of Electronic Devices subject to Destabilizing Factors	3:00 to 5:00 pm (ERC 490)
Oct 20	Database of ERE and Materials for Thermal & Mechanical Models	3:00 to 5:00 pm (ERC 490)

**Contact Information**

Prof. S. D. Rajan  
480-965-1712  
s.rajan@asu.edu

**Map and Public Parking**

<http://www.asu.edu/map/map.html>

