Senzori si traductoare miniaturizate pentru aplicatii aerospatiale	Miniaturised sensors and transducers for aerospace engineering
Obiectiv principal	**Course Objective**
Se urmareste insusirea de catre masteranzi a unor capitole speciale legate de arhitecturi si elemente de calcul aferente unor senzori si traductoare miniaturizate utilizate in aplicatii aerospatiale	Students are expected to acquire special chapters related to architectures and calculation elements related to miniaturized sensors and transducers used in aerospace applications
Curs **1 ora pe săptămână, total 14 ore**	**Course** **1 hour weekly, total 14 hours**
• Parametrii si erorile senzorilor de acceleratie si viteza unghiulara • Traductoare accelerometrice cu fibra optica cu retea Bragg • Microaccelerometre capacitive analogice • Accelerometre cu tunelarea electronilor • Microaccelerometre electromagnetice • Girometre cu vibratii • Girometru interferometric cu fibra optica • Girometru cu laser	• Parameters and errors of acceleration sensors and angular speed • Optical fiber accelerometer transducers with Bragg network • Analog capacitive microaccelerometers • Accelerometers with electron tunneling • Electromagnetic microaccelerometers • Vibration gyrometers • Fiber optic interferometric grommet • Laser gyrometer
Seminar **1 ora pe săptămână, total 14 ore**	**Seminar** **1 hour weekly, total 14 hours**
• Studii de caz privind influentele erorilor senzorilor inertiali in pozitionarea vehiculelor aeriene • Calcule de optimizare a accelerometrelor cu fibra optica cu retea Bragg • Studiul accelerometrelor miniaturizate: capacitive, cu tunelarea electronilor si electromagnetice • Studiul girometrelor cu vibratii • Studiul girometrelor optice	• Case studies on the influences of inertial sensor errors in the positioning of air vehicles • Optical fiber accelerometer optimization calculations with Bragg network • Study of miniaturized accelerometers: capacitive, with electron tunneling and electromagnetic • Study of vibration gyrometers • Study of optical gyrometers