

UNIVERSITATEA TEHNICĂ "GHEORGHE ASACHI" DIN IAȘI
Facultatea de HIDROTEHNICĂ, GEODEZIE ȘI INGINERIA MEDIULUI
Departamentul de MĂSURĂTORI TERESTRE ȘI CADASTRU
Concurs pentru ocuparea postului de **Profesor** poz. **3** din Statul de funcții
Disciplinele postului:

- Fotogrammetrie 1
- Fotogrammetrie 3
- Date spațiale din fotogrammetrie și teledetecție

TEMATICA DE CONCURS

pentru postul de **Profesor**

1. Orientarea interioară și exterioară a camerei digitale de preluare.
2. Proiectarea zborului de aerofotografiere.
3. Metode de interpolare folosite pentru generarea modelelor digitale ale terenului.
4. Principii generale privind generarea unei rețele TIN (Triangular Irregular Network). Triangulația Delaunay.
5. Calibrarea camerelor digitale metrice și nemetrice.
6. Clasificarea supervizată și nesupervizată a imaginilor satelitare.
7. Scanarea laser aeropurtată.
8. Clasificarea norilor de puncte Laser Scanner Aeropurtat (LSA).

Bibliografie:

1. **Duane C. Brown, 1971.** *Close-range camera calibration.* Photogrammetric Engineering, 37(8):855–866.
2. **Florea Zăvoianu, 1999.** *Fotogrammetria*, Editura Tehnică, București.
3. **Zăvoianu F., Oniga E. 2017.** *Fotogrammetria digitală*, ISBN 978-606-25-0373-4, Matrixrom, București, 323 pg., 2017.
4. **George Vosselman, Hans-Gerd Maas, 2010.** *Airborne and Terrestrial Laser Scanning*, Published by Whittles Publishing, ISBN: 978-1904445-87-6.
5. **Ian Dowman, Karsten Jacobsen, Gottfried Konecny, Rainer Sandau, 2012.** *High Resolution Optical Satellite Imagery*, ISBN: 978-184995-046-6.
6. **Iosif Vorovencii, 2015.** *Teledetecția satelitară*. Editura MatrixRom, ISBN:978-606-25-0142-6.
7. **Luhmann, T., Robson, S., Kyle, S., Harley, I., 2007.** *Close Range Photogrammetry: Principles, Techniques and Applications*. John Wiley&Sons.
8. **Li, Z., Zhu, Q., Gold, C., 2005.** *Digital Terrain Modeling, Principles and Methodology*, CRC Press, ISBN 0-415-324629. Florida, SUA.
9. **Mikhail, E.M., Bethel, J. și McGlone, J.C., 2001.** *Introduction to Modern Photogrammetry*. John Wileyand Sons, Inc., New York, 479 pagini, ISBN 0-471-30924-9.
10. *Manual of Photogrammetry, fifth Edition*, 2004, American Society for Photogrammetry and Remote Sensing.
11. **Maune, F. D., 2001.** *Digital Elevation Model Technologies and Applications: the DEM Users Manual*. Ediția a II-a, The American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland, ISBN 1-57083-082-7.
12. **Michel Kasser & Yves Egeks, 2002,** *Digital Photogrammetry*, Ed.Taylor & Francis, London.
13. **Zhang Z., 2004.** *Camera Calibration*, Capitolul 2, pag. 4-43, în G. Medioni și S.B. Kang, eds., *Emerging Topics in Computer Vision*, Prentice Hall Professional Technical Reference.



Decan,

Conf. dr. ing. Nicolae MARCOIE

Director departament,

Conf. dr. ing. Constantin CHIRILĂ

“GHEORGHE ASACHI” TECHNICAL UNIVERSITY OF IASI
FACULTY OF HYDROTECHNICAL ENGINEERING, GEODESY AND ENVIRONMENTAL
ENGINEERING
DEPARTMENT OF TERRESTRIAL MEASUREMENTS AND CADASTRE
Competition for position no. 3 in the Department’s positions list

Job courses:

- Photogrammetry 1
- Photogrammetry 3
- Photogrammetric and remote sensing spatial data

TOPICS OF COMPETITION
for the Professor position

1. Interior and exterior orientation of digital cameras.
2. Aero photogrammetry flight planning.
3. Interpolation techniques for terrain surface modeling.
4. General principles for the generation of Triangular Irregular Networks. Delaunay triangulation.
5. Digital metric and non-metric camera calibration.
6. Supervised and unsupervised satellite images classification.
7. Airborne Laser Scanning.
8. Classification of Airborne Laser Scanning point cloud data.

Bibliography:

1. **Duane C. Brown.** *Close-range camera calibration.* Photogrammetric Engineering, 37(8):855–866, 1971.
2. **Florea Zăvoianu, 1999.** *Photogrammetry*, Technical publishing house, București.
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