Section 3. Filling in with information

<u>NEW ACADEMIC POSITION FORM</u>

The form includes the following fields of information:

Field name	Description
University	**UNIVERSITY OF ORADEA**
Faculty	**FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY**
Departament	**ELECTRONICS AND TELECOMMUNICATIONS**
Job position	**10**
Job name	**ASSOCIATE PROFFESOR**
Course titles	**Data Compression and Coding** – tutorial, practical assignmement, project; **Telecomunications Software** – tutorial, practical assignmement, project.
Scientific domain	**ELECTRONICS ENGINEERING AND TELECOMMUNICATIONS**
Description of the position	**Associate professor job position 10** **Data Compression and Coding** – 2 hours / week of tutorial in the second semester for the 3rd year of the bachelor programm for „Telecommunications networks and software" **Data Compression and Coding** – 2 hours / week of practical assignmement in the sceond semester of the 3rd year of the bachelor programm 2 sub-groups programm for „Telecommunications networks and software" **Data Compression and Coding** – 1 hour . week of project guidance for in the second semester of the 3rd year of the bachelor programm 2 sub-groups programm for „Telecommunications networks and software" **Telecomunications Software** – 2 hours / week of tutorial in the second semester for the 4th year of the bachelor programm for „Telecommunications networks and software" **Telecomunications Software** – 1 hour / week of practical assignmement in the sceond semester of the 4th year of the bachelor programm for „Telecommunications networks and software"
Position tasks	This position comprises teaching activity, practical assignments and project guidance for the course entitled "Data compression and Coding" for the 3rd year of

	bachelor program students enrolled in the program named "Software and Network Communications" as well as for the course entitled "Telecommunications Software". These two courses are novel and are not included in any other current job position of our department, faculty or university. Other responsibilities and associated tasks: professional guidance for the bachelor or master diploma for student graduation, assessment duty, such as exams, mid-term evaluation, spring and fall exams and re-exams, tutorial, consulting activity, self-experiencing, participation to conferences or academic exchanges, collaboration with other universities, courses and books (monographs or edited) preparation, and other specific academic and research tasks.
Base wages	
The date of the job appointment announcement in the Official Monitor	**21.12.2012**
Time interval for the application enrollment	**21.12.2012 -31.05.2013**
Date, day and hour of the selection	
Place for the interview selection	**Str. Universității Nr.1, sala B 215, pav.B, etaj II, Oradea**
Dates of contest events, including interview, prelections, courses, etc.	
Job interview results date	
Time interval for appeals	**– 5 working days from the date of result announcement**
Contest themes	*Data Compression and Coding* 1. Basics in data and image processing. 2. Human visual system, fundamentals of image perception and representation. 3. Image transforms. 4.Data correlation and methods for redundant information suppression. 5.Singular value decomposition and its application in data compression. 6.Image quality assessment methods, basics in source coding and decoding and video processing. 7. Motion detection and estimation. 8.Basics in information theory, Huffman and LZW coding. 9. Arithmetic coding. 10. The JPEG still picture compression standard. 11.Sub-band decomposition, wavelet transform and JPEG2000 standard. 12.Audio data compression. 13.The MP3 and MP4 audio compression standard.

	14.MPEG – 1 and MPEG – 2 video compression standards. *References* [1] Mohammed Ghanbari: Standard Codecs: Image compression to Advanced Video Coding, Institution of Electrical Engineers , 2003. [2] R.O. Duda, P.E. Hart, and D.G. Stork, Pattern Classification, New York: John Wiley & Sons, 2001. [3]D. D. Salomon: Data Compression: The Complete Reference (Fourth Edition), Springer – Verlag, 2007 *Telecomunications Software* 1.History of telecommunications. 2.Techniques and Internet communications protocols. 3.Webpage development and software applications. Frontpage. WYSIWYG Web Builder. 4.Dynamic Webpage development, blogs, forums and protected social networks. 5.Electronic e-mails. Protocols and software. Outlook. Mozilla Thunderbird. 6.Virtual private network - VPN. EasyVPN. Remobo. Hamachi. 7.Voice over IP –VoIP technology. Voce Online Romtelecom, Express Talk NCH. 8.Instant messaging software. Messenger, Skype, Comodo Secure messaging. 9.Teleconferencing softwar. iVisit Presenter. Mikogo. Openmeetings. 10.Remote based software for communications. TeamViewer. Comodo EasyVPN 11.H.264 standard and streaming. 12.Surveillance technology and software. 13.Unified Modeling Language – UML for telecommunications *References* [1] Anton A. Huurdeman, The Worldwide Hystory of Telecommunications, John Wiley & Sons, Inc., ISBN 0-471-20505-2, Hoboken, New Jersey, 2003. [2] Adrian Farrel, The Internet and its Protocols – The Comparative approach, ISBN 1-55860-913-X ELSEVIER, San Francisco, 2004. [3]John Mairs, VPNs:A Beginner's Guide, McGraw-Hill, Osborne, ISBN 0-07-219181-3, Berkeley, California, 2002. [4]***, VoIP Technologies. A comprehensive guide to Voice over Internet Protocol (VoIP), Nortel Technical Training Series, ISBN 978-0-9801074-0-1, Nortel Press, March, 2008. [5]http://www.teamviewer.com/index.aspx [6]http://www.comodo.com/
Job appointment description	The interview for the job appointment of the associate professor position includes the analysis of the

	applicant's requested documents and a public speech provided by the applicant. The 45 – minute long public speech aims at self - describing his most representative professional achievements during his career, as well as a plan for future research activity as foreseen. This session should include questions from the commission or from the public audience. The commission will assess the applicant according to the following aspects: a) The relevance and the international impact of his scientific results; b) The ability of the applicant to guidance students or young researchers; c) The lecturing skills of the applicant; d) The applicant's ability to make use of the technological transfer and his know-how regarding the application of his expertise towards commercial tools or for disseminating his research results; e) The applicant's willing of being integrated into a work team and the effectiveness of having a fruitful collaboration with other colleagues from inside the team; f) The capacity of the applicant to lead and manage research and development projects; g) The applicant's experience gained over time in different foreign universities or laboratories other than the host university. The assessed professional competence of the applicant will be judged by the commission members according to the applicant's contest file and can include some other requirements such as the proof of providing lectures or other tasks, requirements in line with the internal regulations of the host university and, particularly of the Faculty of Electrical Engineering and Information Technology.
List of required documents	(1) *The enrollment procedure for the appointment of the job position requires the preparation of a file that should include the following items:* a) *a standard form for the job appointment signed by the applicant.* b) *The aplicant should include a future plan for his academic and research career along with his realistic ideas towards research objectives; the document length should not exceed 10 pages;* c) *The applicant's curriculum vitae as both printed and elcetronic version* d) *A printed and electronic list of the applicant's publication record* e) *A file justfying the applicant is eligible to the job position (satisfying the minimum criteria)* f) *Legalized copy of his PhD diploma* g) *1 – page English and Romanian summary of his PhD*

	thesis. h) *Statement on own responsibility, indicating incompatibility situations foreseen by Law 1/2011 in which the candidate might be after winning the contest or the lack of such incompatibility situations.* i) *The habilitation diploma fot a full professor position only* j) *Copies of other diplomas which certify the candidate's studies.* k) *Copy of the marks.* l) *Copy of the identity card* m) *Marriage certificate of proof of name change if necessary* n) *Medical certificate.* o) *Maximum 10 publications, patents or other paper works of the candidate, in electronic format, selected by the candidate and considered to be the most relevant for his/her own professional accomplishments.* (2) *When no printed or electronic format of his/her publications are available, such as paintings, musical, arts, etc, recordings or photo should be attached to the file.* (3) *All the above required items must be copied in electronic format on a digital support such a CD or DVD to be delivered to the commission* The applicant will include 3 contact names and addresses of personalities in the domain, not from the University of Oradea, who have elaborated recommendation letters regarding the candidate's professional qualities.
Address where the contest file has to be delivered	**Str. Universității Nr.1, Departamentul de Resurse Umane, 410087 Oradea**
Commission	**Committee members. They are selected from the existing members or a new committee is formed. The contest committee is formed of 5 members, including its <u>chairperson</u>, experts in the domain or in related domains. The committee can also include surrogate members.**
Methodology	**The files with the extension doc, docx or PDF are uploaded. The maximum accepted size of a file is of 10 MB.**