

# MINISTRY OF NATIONAL EDUCATION AND RESEARCH CONSTANTA MARITIME UNIVERSITY



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Information about the job application contest for the position of "Associate Professor"

Department of Electronic and Telecommunication, entry no. 20 in the job title list Faculty of Naval Electromechanics Constanta Maritime University

# a.) Description of position

Full-time entry 20 in the Department of Electronic and Telecommunication, Faculty of Naval Electromechanics, Constanta Maritime University

Academic Subjects in the curricula:

- Electronics
- Circuits analysis and synthesis
- Information transmission theory
- Signals and systems

# b) Tasks / Activities associated with the role

Teaching Load: Related duties /activities

No.	Type of Activity	Nr.of conventional hours
1.	Teaching Activities, seminars, laboratory, projects	8 h /week
2.	Guidance for the elaboration of the Bachelor thesis, Master Thesis	2 h/week
3.	Research and Scholarly Activities enlisted in the Curricula	2 h /week
4.	Assessment Activities	2 h /week
5.	Tutoring, counseling, guidance of students' scientific groups, of students within the European Credit Transfer and Accumulation System	2 h/week
6.	Participation in councils and commissions in the interest of education, including admission and completion of studies committees	2 h/week
7.	Self-Study	10 h /week

#### Research Load

No.	Type of Activity	Nr. ore conventiona
1.	Research Activities	12 h /week

c.) Grid payroll / Associate professor

No.	Years of academic labor	Minimum wage for classification
1	0-3 years	-
2	3-6 years	2 437
3	6-10 years	2 590
4	10-15 years	3 051
5	15-20 years	3 420
6	20-25 years	3 698
7	25-30 years	3 901
8	30-35 years	4 024
9	35-40 years	4 269
10	Over 40 years	4 348

# d.) Calendar of the job application contest

- The Application period (from 28<sup>h</sup> of November 2016 to 11<sup>th</sup> of January 2017)
- The contest period (from 28<sup>th</sup> of January 2017 to 31<sup>st</sup> January 2017).
- The Higher Education Institution announces on its website the contest date, time and place at least **5 working days** before the contest.

#### e). Detailed syllabus and tutorial

#### **Electronics**

No	Content
1.	Semiconductor diodes. Applications.
2.	Bipolar transistors. Equations of bipolar transistors.
3.	Field effect transistors. Equations of F.E.T.
4.	Amplifiers and oscillators.
5.	Operational amplifiers.

### **Bibliography**

- 1. Dascălu D. s.a., *Dispozitive și circuite electronice*, Ed. Didactică și Pedagogică, București, 1982.
- 2. Gray P. s.a., Bazele electronicii moderne, Ed. Tehnică, București, 1973
- 3. Gray P. s.a., Circuite integrate analogice, Ed. Tehnică, București, 1983

Circuits analysis and synthesis

No	Content
1.	General methods of analogues systems analysis
2.	Methods analysis of discrete time systems
3.	Graph method of circuits analysis
4.	Methods of quadripoles analysis
5.	Quadripoles synthesis

# Bibliography

- 1. Haykin S., Van Veen B., Signals and Systems, John Wiley & Sons 1999
- 2. Mateescu A., ş.a. Semnale şi sisteme, Teora 2001
- 3. Mateescu A., ș.a. Semnale, circuite și sisteme. Probleme. Editura Militară, Bucuresti 1999
- 4. Petrescu T., ș.a. *Analiza și sinteza circuitelor. Teorie și aplicații.* POLITEHNICA Press Bucuresti 2015
- 5. Săvescu M., ș.a. *Semnale, circuite și sisteme. Probleme* Ed. Didactică și Pedagogică, București 1981

**Information Transmision Theory** 

No.	Content
1.	Probability spaces and random variables
2.	Measure of information. Entropy
3.	Information sources coding
4.	Communication channels
5.	Codes theory

# **Bibliography**

- 1. Gray R., ş.a., *Probability, Random Processes, and Ergodic Properties*, Springer-Verlag 2010
- 2. Gray R., Entropy and Information Theory, Springer-Verlag 2013.
- 3. Spătaru A., *Teoria transmisiunii informației*, Editura Didactică și Pedagogică București 1983
- 4. Stoian R., ş.a., *Teoria informației și a codurilor. Aplicații*, Editura POLITEHNICA, București 2010

Signals and systems

No.	Content
1.	Time domain signal analysis. Distributions.
2.	Fourier series
3.	Methods of Impulse analysis. Fourier and Laplace transform
4.	Discrete time signals analysis. Z transform
5.	Systems analysis methods

#### **Bibliografy**

- 1. Haykin S., Van Veen B., Signals and Systems, John Wiley & Sons 1999
- 2. Mateescu A., ş.a. Semnale şi sisteme, Teora 2001
- 3. Mateescu A., ș.a. *Semnale, circuite și sisteme. Probleme.* Editura Militară, București 1999.
- 4. Săvescu M., ș.a. *Semnale, circuite și sisteme. Probleme* Ed. Didactică și Pedagogică, București 1981

#### f.) Job Application Contest Procedures

In order to enter the competition for a teaching and research position, the candidate prepares a dossier containing at least the following documents:

- a) Application form, signed by the candidate, including an affidavit about the veracity of the information presented in the file;
- b Proposal to develop the candidate's academic career in terms of teaching, in case of teaching positions and also in terms of scientific research; the proposal shall be made by the candidate, it includes more than 10 pages and is one of the main criteria of selecting candidates.
- c) Curriculum vitae of the candidate, printed and electronically

- d) List of candidate's works, printed and electronically;
- e) A sheet verifying the fulfillment of university standards of presentation in the competition, whose standard format is required by its own methodology. The verified sheet is completed and signed by the candidate;
- f) Documents which relate to the degree of doctor: copy of the diploma of doctor and, if the original doctor's degree is not recognized in Romania, certificate of recognition or equivalence thereof;
- g) Summary of the thesis in Romanian and a foreign language, or, where applicable, habilitation thesis on no more than one page for each language;
- h) The candidate's affidavit indicating incompatibility situations stipulated by Law no. 1/2011 as they are for winning the competition or lack of such situations of incompatibility;
- i) Copies of other diplomas demonstrating the candidate's studies
- j) Copy of identity card or, if the candidate does not have an identity card, passport or other identity document issued in an equivalent identity purpose;
- k) If the candidate has changed his name, copies of documents certifying the name change marriage certificate or proof of name change;
- I) Maximum 10 publications, patents and other papers of the candidate, in electronic format, selected by him and considered to be most relevant for their professional achievements.

#### Curriculum vitae of the candidate must include:

- a) information about the studies and diplomas obtained;
- b) information on professional experience and relevant jobs;
- c) information about research and development projects which he led as project manager and grants obtained, if there are such projects or grants, indicating for each funding source, funding amount and the main resulting publications and patents;
- d) information about the awards or other recognition of scientific contributions of the candidate.

#### Full list of papers of the candidate will be as follows:

- a) List of more than 10 papers of the candidate to be most relevant for his professional achievements, which are included in the electronical file and can be found in other types of works under this article. For the post of professor, works list will specify which of the papers presented are carried out after obtaining the certificate of entitlement;
- b) The doctoral thesis or theses;
- c) Patents and other industrial property titles;
- d) Books and chapters in books;
- e) Articles/studies extensively published in international scientific journals in the main stream;
- f) In extenso publication, the main works published in international specialized conferences;
- g) other works and scientific contributions, as appropriate, in the field of artistic creation. *Candidate's professional competence* is assessed by the competition commission based on the record of the competition and, additionally, by one or more samples of the competition, including lectures, courses or other similar support under this methodology:
  - a) for all posts for indefinite period, a test is represented by a public lecture at least 45 minutes in which the candidate has the most significant previous professional and academic career development plan. A mandatory session of questions from the committee and from the assistance is included.
  - b) The Higher Education Institution announces on its website the contest date, time and place at least 5 working days before the test. Stages of the contest:

Stage I: the assessment of the candidate's application file (evaluation of the documents in accordance with Methodology for occupying vacant didactic and research positions.

Stage II: In the public lecture, the candidate has to deliver in at least 45 minutes, before the competition commission and the department members, his/her most significant professional results as well as plans for the development of his /her academic/scientific career.

g.) The candidate file must contain at least the following documents:

a) Application form, signed by the candidate, including an affidavit about the veracity of the information presented in the file;

- b Proposal to develop the candidate's academic career in terms of teaching, in case of teaching positions and also in terms of scientific research; the proposal shall be made by the candidate, it includes more than 10 pages and is one of the main criteria of selecting candidates.
- c) Curriculum vitae of the candidate, printed and electronically

d) List of candidate's works, printed and electronically;

- e) A sheet verifying the fulfillment of university standards of presentation in the competition, whose standard format is required by its own methodology. The verified sheet is completed and signed by the candidate;
- f) Documents which relate to the degree of doctor: copy of the diploma of doctor and, if the original doctor's degree is not recognized in Romania, certificate of recognition or equivalence thereof;
- g) Summary of the thesis in Romanian and a foreign language, or, where applicable, habilitation thesis on no more than one page for each language;
- h) The candidate's affidavit indicating incompatibility situations stipulated by Law no. 1/2011 as they are for winning the competition or lack of such situations of incompatibility;

i) Copies of other diplomas demonstrating the candidate's studies

- j) Copy of identity card or, if the candidate does not have an identity card, passport or other identity document issued in an equivalent identity purpose;
- k) If the candidate has changed his name, copies of documents certifying the name change marriage certificate or proof of name change;
- I) Maximum 10 publications, patents and other papers of the candidate, in electronic format, selected by him and considered to be most relevant for their professional achievements.
- h.) The application for the competition will be submitted to the address enclosed in the header.

DEAN:

Assoc. Prof. Ion Omocea, PhD.

HEAD OF DEPARTAMENT: Prof. Răzvan Tamas, PhD.