ESTIA INSTITUTE OF TECHNOLOGY	**CALL FOR APPLICATIONS** **ASSISTANT PROFESSOR POSITION ON ELECTRICAL ENGINEERING/AUTOMATION AND ELECTRICAL GRIDS – STRONG MATHEMATICS SKILLS** **CDD** **Section CNU 63 ou 61**

Renewable Contractual status, possible permanent contract at the end of the fixed-term contract.

ESTIA (http://www.estia.fr) develops three activities: the training of trilingual generalist engineers and Bachelor (200 graduates per year), research and transfer, the management of 3 business incubators and a technopole. ESTIA trains trilingual engineers in 3 years in the fields of energy, embedded systems, mechanics, IT and industrial organization. ESTIA is a member of the "Conférence des Grandes Ecoles » and is accredited by the Commission of Engineering Degree. In addition to the training mission, ESTIA develops collaborative projects with industrial companies in the Aquitaine region, France and Europe, in both applied and fundamental research projects through its multidisciplinary Estia-Recherche team. To enhance the value of all these activities, ESTIA animates and uses several technical platforms: EneR-GEA, CompositAdour, PEPSS, SIMECOMP and the new ADDIMADOUR platform.

As part of the development of its training activities in the Engineering Cycle and the Bachelor of Technology cycle, ESTIA is looking for an Associate Professor in Electrical Engineering with a strong mathematical dominance.

Position

The Associate Professor will be attached to the ESTIA-Research service. He / She will report directly to the Director of Research. He / She will report to the Director of Training for the teaching part.

Profile

The applicant must have a PhD or be in the process of finalising a PhD in Electrical Engineering / Automation with **a strong mathematical focus** and significant experience in teaching. Research results related to the research activities below and teaching skills related to the disciplines to be taught described below are sought. Ability to teach in English and/or Spanish are appreciated.

Research activities

Estia-Recherche is the Research Unit of ESTIA, registered at the RNSR under the n° 201420655V Estia-Recherche, associated with the doctoral schools SPI (Sciences pour l' Ingénieurs) and MI (Mathematics and Informatics) of the University of Bordeaux. We expect from the Assistant Associate Professor to be part of the "*Sustainable and Empowering Interfaces*" research project, which addresses both the study, design and implementation of System-System, Human-System and Human-Human interactions and promotes the emergence of a positive intelligence for users. More specifically, considering the profile, he/she will work within the research axis Renewable Energy Integration focusing on the following issue: *how to move from the traditional paradigm of power grids as a utility-oriented system to a customer-centric system. In particular, the candidate should have* ***expertise in statistical, probabilistic artificial intelligence methods oriented towards power system resilience***. The candidate must be involved in research activities including but not limited to: Micro-Grid, and SmartGrids, power

electronics and control applied to renewable energy sources and storage. The candidate will be required to develop research activities with experimental support in his/her field of expertise and to develop ESTIA's skills towards the industrial sector. The following skills will be highly appreciated: Experience in Matlab/Simulink and/or DigSilent, Experience in modelling and simulation of dynamic systems, Experience in real-time simulation (OPAL-RT, dSPACE...).

Teaching activities

The recruited Assistant Associate Professor will participate in the Electrical Engineering courses of Estia Engineering Cycle and the Bachelor's degree. He/she will be involved in Electrical Engineering, Analogue and Digital Electronics, Electrotechnics, Robotics and Automation. He/she will also contribute to the development of innovative pedagogical practices and will be able to teach in French and English. The target hourly teaching volume is 220 h per year, redefined during the annual professional interview held with the Director of Research.

Expected competencies in pedagogical engineering

ESTIA implements active, inductive, individualized and distance learning processes. The recruited Assistant Associate Professor will contribute to the implementation of these processes. He/she will collaborate with the heads of the cycle and with other teachers to contribute to the evolution of the contents and pedagogical methods in his/her field of competence.

Collective Responsibilities

The Assistant Associate Professor will be asked to participate in the collective responsibilities of the Training: support for internships, monitoring of corporate learners, evaluation of reports, etc... The volume of time devoted to these activities will vary during the year, depending on the needs and the distribution of teaching activities.

Submission of applications

A CV accompanied by a cover letter and the names and e-mail of three referees who can provide a recommendation letter and any evidence of skills developed in previous experiences should be sent to: *Prof. Ionel VECHIU, i.vechiu@estia.fr, +33 559.43.84.74*

The candidates' formal assessment will begin on September 10, 2021, and continue until the position is filled.