



ERATOSTHENES CENTRE OF EXCELLENCE

SENIOR RESEARCHER POSITION IN INFORMATION EXTRACTION, VISUAL EXPLORATION & VISUALIZATION, CROWD SOURCING & DATA FUSION, GEOINFORMATICS, REMOTE SENSING AT THE BIG EARTH DATA ANALYTICS DEPARTMENT

The ERATOSTHENES Centre of Excellence (ECoE) (www.eratosthenes.org.cy) of the Cyprus University of Technology (www.cut.ac.cy) invites applications for the position of Senior Researcher at the Big Earth Data Analytics Department of the ERATOSTHENES CoE. This position is open either on a full-time (100%) or part-time employment basis.

This position is open to everyone internationally in the framework of the EU-H2020 “EXCELSIOR” project (Excellence Research Centre for Earth Surveillance and Space-Based Monitoring of the Environment; <https://excelsior2020.eu/>; TEAMING Grant no. 857510). Through this project, the Cyprus University of Technology is establishing the ERATOSTHENES Centre of Excellence in Space Technology, Earth Observation and Geospatial Technology in the EMMENA (Eastern Mediterranean Middle East North Africa) region, in cooperation with the Department of Electronic Communications (DEC) from the Deputy Ministry of Research, Innovation and Digital Policy (Cyprus) and with EU advanced Partners the German Aerospace Centre (DLR, Germany), TROPOS (Germany) and the National Observatory of Athens (NOA-Greece).

The ERATOSTHENES Centre of Excellence is an autonomous Centre of Excellence with Cyprus University of Technology (CUT) as its sole stakeholder, aiming to become a viable, sustainable Centre of Excellence in earth observation, space technology and geospatial analysis. CUT has a 13-year experience in earth observations and geospatial analysis. Through the “EXCELSIOR” H2020 Teaming Project (2019-2026), the ERATOSTHENES CoE aspires to become an excellent Digital Innovation Hub for Earth Observation and Geospatial Information by offering education, responsible research, open innovation and application services capable of sustaining Cyprus’ development. The ERATOSTHENES CoE aspires to actively contribute to the European Research Area (ERA) priorities in Atmosphere and Climate, Resilient Societies and Big Earth Data Analytics, as well as to become the reference Earth Observation/Geoinformation Centre for research and innovation in the Eastern Mediterranean, Middle East and North Africa (EMMENA) region.

Description of the Position

The successful candidate will be assigned to the Department of Big Earth Data Analytics within the Centre of Excellence, in which earth observation-based research will be conducted in the following thematic domains: information extraction, visual exploration & visualization, Crowd sourcing & data fusion, Geo-informatics and Earth Observation data bases.

The selected Senior Researcher A or B (qualifications equivalent to Professor or Associate Professor level, respectively) will assume a leading and coordination role in the development of ERATOSTHENES CoE's research and innovation agenda in remote sensing on environment and climate with emphasis on the Department's thematic areas (information extraction, visual exploration & visualization, Crowd sourcing & data fusion, Geo-informatics and Earth Observation data bases).

In close collaboration with the respective Department's Coordinator, the Senior Researcher will be responsible for providing proposals for actions towards the strategic development of the Department and supporting its sustainability, overseeing the overall scientific progress within the Department, providing guidance to other researchers and technical staff, as well as monitoring research progress through supervision and coordination. The Senior Researcher is expected to promote a spirit of inter-departmental and intra-departmental collaboration within the ECoE.

A core activity of ERATOSTHENES CoE is to conduct high caliber, state-of-the-art research, both basic and applied. A central task is to acquire research funding for the Centre, to provide facilities to the researchers, and to support them to acquire funding for their research independently and via international and local collaborations. Collaborations with industrial partners will be particularly encouraged and facilitated.

At a strategic level, the Senior Researcher will be actively involved, in collaboration with the respective Department's Coordinator and the strategic partners, in the development and overseeing of the execution of the Strategic Research and Strategic Growth plan of the ERATOSTHENES CoE. This plan should be regularly revisited and updated to meet the strategic and long-term plans of the ECoE.

Appropriate measures of success will be collaboratively determined based on the Centre's strategic growth plan and sustainability targets. These will be revised periodically by the Executive Committee and the Board of Directors.

Duties and Responsibilities

The successful candidate will be responsible for helping to shape and advance the ERATOSTHENES CoE's research and innovation agenda by:

1. Developing and implementing R&D strategies appropriate to the ERATOSTHENES CoE's mission to become a regional knowledge hub in the fields of the Department, capitalizing on earth observation, space technologies and geospatial technologies;
2. Actively participating and ultimately leading world-class research programs (bottom-up) in the fields of information extraction, visual exploration & visualization, crowd sourcing & data fusion, Geo-informatics, using state-of-the-art methods, data and infrastructure;
3. Aligning the Department's research agenda with ERA priorities, EU, ESA, and International Funding and Regulatory frameworks, e.g. Sustainable goals, open innovation, and responsible research;
4. Securing financial and other resources from national, regional and international sources;

5. Establishing local, regional, and international research networks that can support the long-term research agenda and priorities of the Department;
6. Developing activities to support the scientific integration of Europe and to strengthen its international outreach;
7. Foreseeing the European Roadmap for Research Infrastructures (ESFRI) systematically;
8. Support mentoring, educating and providing research guidance to graduate students in the Cyprus University of Technology & ERATOSTHENES CoE PhD programmes;
9. Overseeing the career-development plans of PhD candidates & researchers in the Department;
10. Initiating and sustaining high-level collaborative Coordination and Support Actions (CSA) and Research and Innovation Actions (RIA) projects with leading partners that conduct research in areas related to his/her respective fields;
11. Communicating the results and implications of research conducted at ERATOSTHENES CoE, including the academic community, the public at large and political and economic decision makers;
12. Exercising an active role in the development of the organization-wide strategy of ERATOSTHENES CoE, working towards meeting its mission goals, promote a vigorous research environment and foster inter-departmental effective collaboration;
13. Consulting with the Consortium Partners of the EXCELSIOR project, to formulate and regularly update the ERATOSTHENES CoE research strategy;
14. Engaging with government and industry bodies to raise the profile of ERATOSTHENES CoE as a research-intensive institution;
15. Ensuring that the KPIs and other performance targets as set by the Centre are delivered;
16. Any other relevant duties deemed necessary.

Qualifications:

1. PhD in a relevant subject (for example, Computer Science, Information Technology, Remote Sensing, Applied Mathematics/Statistics, Physics, Geoinformation Engineering, Geospatial Analysis, Data Science or equivalent);
2. The successful candidate is expected to be an outstanding scholar of international standing with a minimum of seven (7) years for the post of Senior Researcher B and eleven (11) years for the post of Senior Researcher A after the acquisition of a doctoral degree, of research experience and important publication record. The candidates must fulfill the requirements of Senior Researchers A & B as described below;
3. At least 7 years of experience assuming leading roles as Manager, or coordinator, or any other managerial position in a large and international research group;

4. An outstanding track record of peer-review scientific publications in the most prestigious journals of her/his field;
5. The successful completion as coordinator of highly competitive research programs;
6. A successful record of raising funds from (inter)national calls for research projects;
7. Experience in working for European Commission / European Space Agency projects will be considered an asset;
8. State-of-the-art scientific expertise in:
 - Data Science / Machine Learning / Artificial Intelligence theory / Geoinformatics methods and applications;
 - Big data management and distributed processing of big earth observation / remote sensing / satellite scientific data, including data cubes;
 - Exploiting multi-source data EO-based and in-situ/crowd-sourced data and development/assimilation of data/models to support cross-sector research and services/solution provision, in fields as Environment, Disaster Risk Reduction, Energy, Agriculture, Raw Materials, Health, etc;
 - Exploitation of data from Ground based stations for Atmospheric Science and Climate Change Research & Satellite Ground Receiving stations;
 - Working for European Commission / European Space Agency projects.
9. Experience in mentoring post-graduate students and in supervising young (PhD) researchers;
10. The candidate should have an appetite for applied research and its rapid prototyping and management to advance the research and innovation profile and publication record of the team;
11. Being an international leader in her/his discipline, the selected candidate must have excellent interpersonal skills aimed at maintaining contacts in academic, business and governmental circles;
12. Excellent knowledge of the English language both verbal and in writing.

The qualifications required for this position are the same as those required for the post of a full Professor & Associate Professor at the Cyprus University of Technology, as follows:

Minimum Requirements for the posts of Senior Researcher A and B

The minimum requirements for the posts of Special Scientist/ Senior Researcher A (equivalent to Professor): **At least eleven years** in total university/research or other equivalent work experience, after the acquisition of a doctoral degree, of which four years must be university work experience or holding a position at the level of Professor in a recognized university, or holding a position as a

Special Scientist/ Senior Researcher in a recognized research organization, International recognition of the candidate's scientific work; Important contributions to the University's or Research Centre's educational mission and administrative operation; Coordination of research programmes or supervision of doctoral theses.

The minimum requirements for the posts of Senior Researcher B (equivalent to Associate Professor): **At least seven years** in total university/research or other equivalent work experience, after the acquisition of a doctoral degree, of which four years must be university/research work experience or work experience at a corresponding level of another recognized university or another recognized research organization. Publication of articles in prestigious international scientific journals or monographs and books of recognized publishing houses that substantiate remarkable independent research. Ability to guide and promote research which includes supervising of postgraduate students, guidance or important contribution to research programs or securing funding for research activities. Demonstration of international recognition of the candidate's contribution in specific research fields such as research reports, invitations for scientific talks, assignments of article evaluation, research proposals or doctoral theses, participation in scientific journal publication committees or participation in convention organisation. Previous contribution to the promotion of the Research Centre's or University's educational mission and administrative work.

The appointment will be for a period of twenty-four (24) months with the prospect of renewal for twelve (12) months or up to 60 (sixty) months. The monthly gross salary for the (full-time) position will range from €5,722.12 to €6,907.99, depending on qualifications. It is noted that there is provision for 13th salary (the cost of the 13th salary has been proportionally incorporated in the monthly remuneration as analysed above).

Interested candidates must submit their application comprising of all documents listed below via email to vacancies@eratosthenes.org.cy, conspicuously entering in the subject line: "Application for the position on INFORMATION EXTRACTION, VISUAL EXPLORATION & VISUALIZATION, CROWD SOURCING & DATA FUSION, GEOINFORMATICS, REMOTE SENSING at the Big Earth Data Analytics Department" no later than Friday 25 September 2020 at 14.00 CYPRUS TIME, which is the deadline for the submission of the applications.

1. A letter in which the candidate should state the Department, the rank, the specialization in which he/she is interested in, as well as the date on which he/she can undertake responsibilities in case he/she is appointed, in English;
2. *Curriculum vitae* in English;
3. A short review of the research interests as well as a brief description of the future research plans, in English - up to 1500 words;
4. List of publications in English;
5. Reprints of their three most representative publications;
6. Copies of the candidate's degree certificates;
7. Contact Details;
8. Names and contact details of at least three senior academic/research referees. Candidates should request confidential letters of reference in English from the above senior

academic/research referees, which must be sent by the referees themselves directly to the ERATOSTHENE CoE via email to vacancies@eratosthenes.org.cy, by the deadline for the submission of the applications. The names and addresses of the referees should be submitted together with the application because the ERATOSTHENES CoE may also request additional confidential information. The ERATOSTHENES CoE may also request reference letters from independent referees of the choice of members of the Appointed Committee, if considered necessary.

For further information visit the ERATOSTHENES CoE's webpage at <http://www.eratosthenes.org.cy>

It is noted that:

- For non-EU applicants a work permit will be required;
- Applications will be treated in strict confidence. All information provided will comply with the General Data Protection Regulation (GDPR) of the European Union;
- The job requires that the Senior Researcher is or becomes a resident in the area of employment;
- The ERATOSTHENES CoE adopts an equal opportunity policy at recruitment and the subsequent career stages and encourages both genders to submit an application for all levels of Academic and Administrative Staff;
- The ERATOSTHENES CoE does not discriminate in any way on the basis of gender, religion or belief, ethnic, national or social origin, age, physical ability, marital status and sexual orientation.
- The title of the position: Special Scientist for Research / Senior Researcher A or B may be modified upon approval of the HR regulations of the ERATOSTHENES CoE.

The employment of the successful candidate will start upon approval of the contract amendment for including ERATOSTHENES CoE as a new partner in the "EXCELSIOR" H2020 consortium.

CONSORTIUM



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