Multiple Postdoc and Ph.D. Position Available in ERC Project

Sponsored by a European Research Council (ERC) research grant, we are offering a Postdoctoral position to work on research titled “Quantum super-exchange energy storage platform (QUEEN)”. The project aims to introduce control to carrier dynamics in order to tackle uncontrollable microscopic electron and ion interactions at dynamic energy storage (battery) interfaces, and chaotic carrier migration. It leverages quantum electron engineering and atomically precise fabrication of 2D-hybrid nanomaterials to transform these materials into programable matter.

We encourage highly motivated candidates, who want to change the world by discovering a new field of quantum electron engineering to uncover entirely new approaches to physics, chemistry, and engineering to redesign traditional energy storage technology and push it beyond its current theoretical limits, to apply.

Open Positions:

Postdoctoral candidates:
Candidates are required to have significant expertise in 2D Materials, batteries, AFM, STM, TEM, etc., and familiarity with in-situ/operando experimental procedures. Also, applicants should have expertise in one of the following fields plasma physics, condensed matter physics, electric electronic and material engineering, or a related discipline. The candidates will lead part of the project that entails the development, characterization, and planning of unique AFM experiments and probes that will be tested in different research fields and at different international laboratories (Please see the detail page below).

PhD Students:
Candidates must be motivated and have good knowledge of 2D materials, batteries, AFM, STM, TEM, plasma physics, and material engineering. Knowledge of in-situ/operando experimental procedures. The candidates will be intensively trained, mentored, and supervised to be the next-generation scientists. They will be involved in the development, characterization, planning, and subsequent testing of AFM experiments and probes in various research fields and international laboratories. We place a high value on proactivity and initiative, as well as independent thinking and teamwork (Please see the detail page below).

i) Electric Electronics Engineering
ii) Computer Science and Engineering
iii) Material Engineering and related fields
iv) Physics and related fields
v) Chemistry and related fields

Undergrad Students: The candidates will be intensively trained, mentored, and supervised to be the next-generation scientists.

i) Electric Electronics Engineering
ii) Computer Science and Engineering
iii) Material Engineering and related fields
iv) Physics and related fields
v) Chemistry and related fields
vi)

Other opportunities (Not-sponsored by ERC):

1) Co-founder opportunity in an AI start up (Image processing, Sound processing, NPL, etc.)
2) Co-founder opportunity in app developing
3) Co-founder opportunity in new device data collection devices
4)

Application submission: Interested candidates should send their applications to oergen@itu.edu.tr, single PDF file titled "NameOfTheCandidate-QUEEN-ERC.pdf," or “ NameOfTheCandidate-Co-Founder.pdf containing: Motivation Letter (1 page max); Curriculum Vitae; and contacts of 2 references, list of up to 5 most relevant publications. Selected individuals will be invited for an interview following a preliminary evaluation of the applications.

Application process: There will be a two-step selection. Interview and technical evaluation.

Multiple Post-Doctoral and Senior Researcher for ERC Project

Open Call for a Post-Doctoral Research Fellowship

Sponsored by an European Research Council (ERC) research grant, we are offering a Postdoctoral position to work on research titled “Quantum super-exchange energy storage platform (QUEEN)”. The project aims to introduce control to carrier dynamics in order to tackle uncontrollable microscopic electron and ion interactions at dynamic interfaces, and chaotic carrier migration. It leverages quantum electron engineering and atomically precise fabrication of 2D-hybrid nanomaterials to transform these materials into programable matter.

We encourage highly motivated candidates who want to change the world by discovering a new field of quantum electron engineering to uncover entirely new approaches to physics and chemistry to redesign traditional energy storage technology and push it beyond its current theoretical limits to apply.

Candidates require to have significant expertise in 2D Materials, batteries, AFM, STM, TEM, Plasma physics, Material engineering. Familiarity with in-situ/operando experimental procedures. The candidates will lead part of the project that entails the development, characterization, planning and posterior AFM experiments and probes that will be tested in different research fields and at different international laboratories. We value extremely high proactivity and initiative, independent thinking and work as a team.

The candidate must have an internationally recognized Ph.D.-equivalent degree (or evidence of completion in the near future) in physics, chemistry, or engineering, though other specialties are acceptable. Complementary knowledge in Near-Field Optics, Raman Spectroscopy, in-situ SEM, in-situ Raman, and programming will be beneficial in the candidate's evaluation.

We are offering a fully funded postdoctoral position with accommodation (Research Fellow) for 24 months (extendable based on results/success) beginning early-2023 to work on this ambitious ERC project in a dynamic young team. The candidate will have the opportunity to advance his or her scientific career in a welcoming and stimulating environment while interacting with other national and international scientific collaborators. Excellent communication and writing skills in English are required.

Renewable Energy and Quantum Nano-electronics Group (www.onurergen.com)

Application submission: Interested candidates should send their applications to oergen@itu.edu.tr, single PDF file titled "NameOfTheCandidate-QUEEN-ERC.pdf," containing: Motivation Letter (1 page max); Curriculum Vitae; and contacts of 2 references, list of up to 5 most relevant publications. Selected individuals will be invited for an interview following a preliminary evaluation of applications.
APPLICATION DEADLINE: 02/01/2022 - EVALUATION BEGINS IMMEDIATELY

Application process: There will be two step selection. Interview and technical evaluation.

Multiple Ph.D. Position Available in the ERC Project

Open Call for a Ph.D. Research Fellowship

Sponsored by a European Research Council (ERC) research grant, we are offering a Ph.D. position to work on research titled “Quantum super-exchange energy storage platform (QUEEN)”. The project aims to introduce control to carrier dynamics in order to tackle uncontrollable microscopic electron and ion interactions at dynamic interfaces, and chaotic carrier migration. It leverages quantum electron engineering and atomically precise fabrication of 2D-hybrid nanomaterials to transform these materials into programable matter.

We encourage highly motivated candidates who want to change the world by discovering a new field of quantum electron engineering to uncover entirely new approaches to physics and chemistry to redesign traditional energy storage technology and push it beyond its current theoretical limits to apply.

Candidates must be motivated and good knowledge of 2D materials, batteries, AFM, STM, TEM, plasma physics, and material engineering. Knowledge of in-situ/operando experimental procedures. The candidates will be intensively trained, mentored, supervised, to be the next-generation scientist. They will involve development, characterization, planning, and subsequent testing of AFM experiments and probes in various research fields and international laboratories. We place a high value on proactivity and initiative, as well as independent thinking and teamwork.

The candidate must hold an internationally-recognized-equivalent degree (or evidence of its completion in the nearest future) preferably in physics, chemistry or engineering, or a related discipline. Complementary knowledge in Near-Field Optics, Raman Spectroscopy and programming will be an asset in the assessment of the candidate.

We offer fully funded PhD position (+Research Fellow) starting early-2023 to work on this ambitious ERC project in a dynamic young team. The candidate will have the opportunity to enhance his/her scientific career in a friendly and stimulating environment interacting with other scientific collaborators at national and international level. Excellent communication skills in fluent English are necessary.

Application submission: Interested candidates should send their applications to oergen@itu.edu.tr, single PDF file titled "NameOfTheCandidate-QUEEN-ERC.pdf," containing: Motivation Letter (1 page max); Curriculum Vitae; and contacts of 2 references, list of up to 5 most relevant publications. Selected individuals will be invited for an interview following a preliminary evaluation of applications.
APPLICATION DEADLINE: 02/01/2022 - EVALUATION BEGINS IMMEDIATELY

Application process: There will be two step selection. Interview and technical evaluation.