

A2M2TECH
ADVANCED MATERIALS AND ADVANCED MANUFACTURING TECHNOLOGIES



A2M2TECH
ADVANCED MATERIALS AND ADVANCED MANUFACTURING TECHNOLOGIES

a2m2tech.org.tr

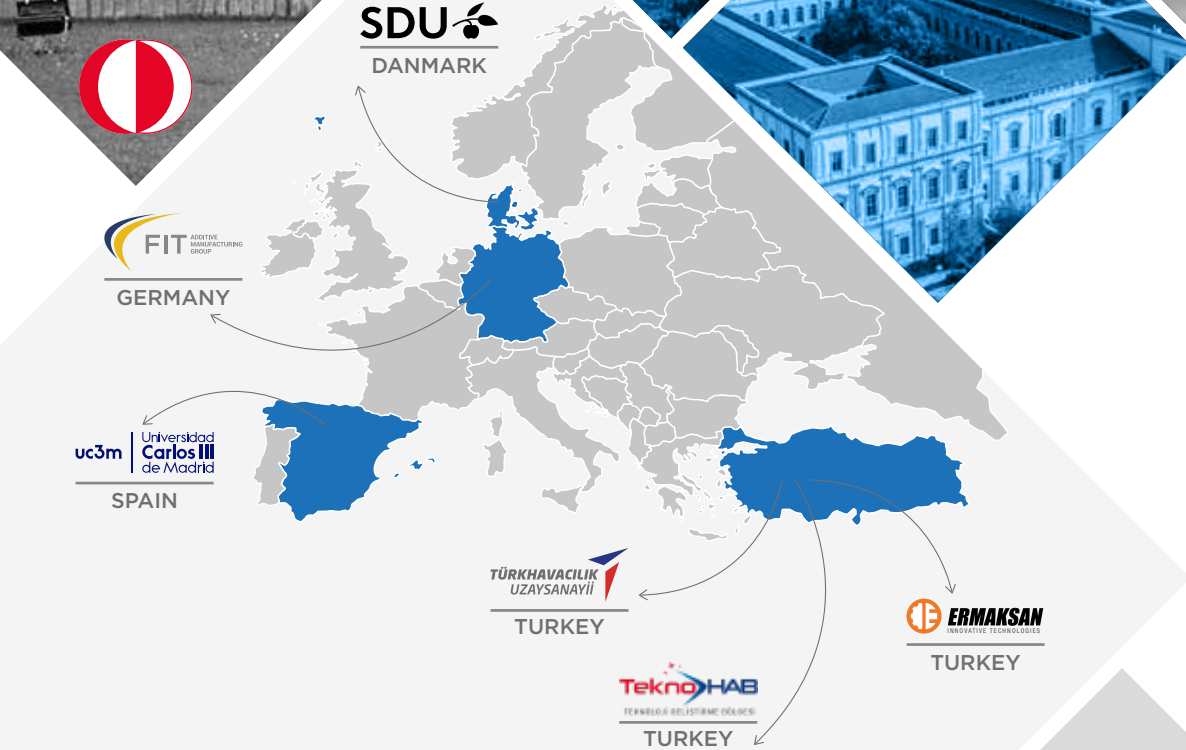
OPEN CALL FOR

Ph.D. Candidates/Early Stage Researchers (ESRs)



We are seeking 22 Ph.D. candidates, called early-stage researchers (ESRs) to work under the project titled **A2M2TECH** (Doctoral Programme in Advanced Materials & Advanced Manufacturing Technologies). The aim of **A2M2TECH** is to deliver an interdisciplinary, inter-sectorial and international excellence doctoral training programme in all aspects of advanced manufacturing and advanced materials, with a major focus on additive manufacturing and related technologies. The programme brings together various strong laboratories and research centers in order to run a collaborative Ph.D. programme in the fields of Advanced Materials and Advanced Manufacturing Technologies.

The programme is led by Gazi University (GU) (gazi.edu.tr/view/Index) in Turkey and coordinated through the **Additive Manufacturing Technologies Application and Research Center (EKTAM)** (ektam.gazi.edu.tr/view/Index), a National Center of Excellence for Additive Manufacturing. In addition to GU, there are 3 other reputable Turkish universities as Partner Organizations namely; **Middle East Technical University (METU)** (metu.edu.tr/), **Istanbul Technical University (ITU)** (itu.edu.tr/en/) and **Izmir Institute of Technology (IZTECH)** (en.iyte.edu.tr/). All universities as part of the programme have cutting-edge technologies and have modern working environment with a view to enhancing the performance of the ESRs. Recruited ESR fellows under A2M2TECH will be primarily supervised and assessed by the Ph.D. supervisors at their host institutions, who will be responsible for the assessment of their duties with respect to the planned activities. The programme, cofounded by **European Commission** (ec.europa.eu/info/index_en) and the **Scientific and Technological Research Council of Turkey (TÜBİTAK)** (tubitak.gov.tr/en), provides excellent career perspectives in the area of additive manufacturing through the integration of multidisciplinary research and training in academia and industry. Recruited 22 ESRs will be provided with the opportunity to carry out research activities under secondments in several national & international host institutions with a particular focus on the inter-sectorial University-Industry collaboration. All candidates will have secondment experience in international institutions as follows: **FIT Additive Manufacturing Group (GERMANY)** (fit.technology/index_en.php), **Universidad Carlos III de Madrid (UC3M) (SPAIN)** (uc3m.es), **University of Southern Denmark (SDU) (DENMARK)** (sdu.dk), **Tusaş Aerospace Industries (TAI) (TURKEY)** (tusas.com/en), **Ermaksan Innovative Technologies (ERMAKSAN) (TURKEY)** (ermaksan.com.tr/en-EN/) and **TeknoHAB (TURKEY)** (teknohab.com.tr/). ESRs will be participating to summer school training activities each year at different organizations in different countries as part of secondments.



Through this programme, the potential ESRs will have the opportunity to grow academically and also built their career in the industry at the same time. Once the potential ESRs are selected and qualified as ESRs, they will also be part of a wide range of scientific networking of the hosting top research organizations/universities and research centers.

ESRs have the chance to complete their Ph.D. in top research Universities in Turkey. In addition to that, they will also be working in organizations and techno-parks equipped with cutting edge technology in the field of advanced materials and advanced manufacturing. Moreover, the programme is designed to enhance their experience by including summer schools in and outside Turkey and also hands-on activities in real world/industry.

DESCRIPTION OF THE PROGRAMME

CAREER PERSPECTIVE AFTER GRADUATION

After completing the Ph.D., ESRs will have a chance to get employment at spin of companies and technology companies at TechnoHAB (teknohab.com.tr/) and/or even startup their own company to exploit the results generated in their research project during the programme.

FINANCIAL CONDITIONS

22 ESRs will be selected, recruited and appointed on 48-month contracts each through this present Open Call following a transparent, open and merit-based procedure. Social security coverage for the contracted fellows include benefits for health care, occupational accident, unemployment and disablement benefits, parental and sick leave. Each ESR fellow will receive a **gross salary of €2920 per month**. ESR fellows will also be supported during the process of obtaining residence permit and finding accommodation.

In addition to regular Ph.D. courses, the ESRs will have the chance to actively take part in the following activities:

Secondment

The close interaction between academic & nonacademic sectors within research and training activities is a key aspect of this programme; transferring scientific knowledge to the market and closing the gap between academia and industry in Additive & Advanced Manufacturing are indeed key objectives to be implemented with this doctoral programme, strengthening the education of the ESRs through relevant skills and enhanced professional & academic profiles. In line with that ESRs will carry out research activities in the following top research centers:

FIT Additive Manufacturing Group, Universidad Carlos III de Madrid (UC3M), University of Southern Denmark (SDU), Tusaş Aerospace Industries (TAI), Ermaksan Innovative Technologies (ERMAKSAN) and TeknoHAB.

Individualized Training

High-quality individualized training in scientific/transferable skills, network-level training in interdisciplinary skills and entrepreneurship, and training in inter-sectoral competence through secondments will be part of the programme. ESRs will receive a high-level training programme combining local and programme-wide activities that will enhance their research and personal skills, providing them with new career perspectives and opportunities.

The training programme includes practical Hands-On-Schools, Summer Schools, Industrial Training, Secondments and a Final A2M2TECH Conference. Each of the fellows participating in the programme will receive a personalized career guidance & training programme which will allow them to learn an extensive array of concepts and techniques and broaden their expertise, skills and competences in Additive Manufacturing, Advanced Manufacturing and Advanced Materials.



COMMENCEMENT OF THE PH.D. PROGRAMME



Unique Approach to Obtain Ph.D. Degree: Once the potential ESRs have been selected and qualified as ESRs they will;

be registered at one of the top research Universities in Turkey; Gazi University (GU) in Ankara, Middle East Technical University (METU) in Ankara, Istanbul Technical University (ITU) in Istanbul, Izmir Institute of Technology (IZTECH) in Izmir, which offer a number of compulsory & optional activities depending on which doctoral programme they are registered at. As a pre-requisite in the Turkish Ph.D. system, all prospective Ph.D. researchers must complete at least 8 compulsory graduate lectures plus one seminar over two semesters as part of their training. Once this stage is completed, they can move onto the research project, after completing the qualifying exam.

After ESRs have completed at least 8 compulsory graduate lectures plus one seminar and courses over two semesters and passed the qualifying exam at their hosting university (they are required to complete this period in 1 year), all 22 ESRs will start working on their research in EKTAM for 3 years based in Ankara. In other words, apart from 13 ESRs studying at Gazi university, the rest of ESRs will move from Izmir or Istanbul to Ankara after two semesters as explained above.

Each ESR will be informed of other compulsory training activities upon starting the contract and will be encouraged to attend as many optional activities as possible. Some of these activities may include: attendance to seminars, lectures and conferences by experts in the different areas of research; preparation of a research paper and submission to a high-impact indexed research journal in the field; participation in national and/or international conferences through poster/oral communication.

ELIGIBILITY CRITERIA AND **APPLICATION REQUIREMENTS**

Potential ESRs may not have resided or carried out their main activity (work, studies, etc.) in Turkey for more than 12 months in the three years immediately before the date of recruitment. In other words, if the potential ESRs who have been in Turkey 12 months and more over the past 3 years before applying to the programme, will be considered as ineligible. This will be checked during the application stage based on the applicants' passports (if you have used more than one passports over the past three years you are required to share the relevant pages). Also at the date of recruitment, researchers must be in the first four years (full-time equivalent research experience) of their research careers. That is to say, applicants will be in the first four years after their completion of the Master's degree, might have started a Ph.D. programme but not yet have been awarded a Ph.D. (the gap between the date of obtaining the Master degree and the date to apply to the programme can be maximum 4 years). Also, time spent as part of a procedure for obtaining refugee status under the Geneva Convention¹, compulsory national service and/or short stays such as holidays are not taken into account.

Applicants can apply to more than one research topic (up to three research topics offered by hosting universities) and will be assigned to one of those based on her/his priority and scoring/ranking.

Each applicant must submit an application containing the following information and documents for:

GENERAL ELIGIBILITY REQUIREMENTS

Documents need to be submitted:

1

Digital copy with under graduate and master degree certificates and the respective official transcription in English for both; Bachelor and MSc Degree must be in the following departments: Mechanical Engineering, Materials and/or Metallurgy Engineering, Aerospace and/or Aviation Engineering, Aeronautical Engineering, Astronautical Engineering. Please note that, ESR5 offered by Gazi University can only accept students who did their undergraduate and/or MSc in Physics or Photonics.

2

If applicable, the candidate should send by mail an official document - issued by the HEI that awarded the Master diploma - stating the candidate relative position in the corresponding graduation course, i.e. top 5%, 10% or 20% of his/her Bologna second cycle (Master) studies.

3

Detailed CV and a motivation letter (in English); CV may include background, awards, scholarships, meetings, publications etc. Please read the Guide for Evaluator for the information to be included. The letter of intention should be included in the CV. They must specify the applied subject and Universities/Institutes.

4

If applicable, the candidate should send by mail an official document - issued by the HEI that awarded the Master diploma - stating the candidate relative position in the corresponding graduation course, i.e. top 5%, 10% or 20% of his/her Bologna second cycle (Master) studies.

5

Description of the intended doctoral research and eventual preference for research theme/topics (3 choices from the list).

6

For admission, candidates must submit a copy of Master degree (120 ECTS) in the relevant fields awarded by a College, University or Technical School with recognized standing.

7

Additional information supporting the applicant's ability: academic record, professional experience in multidisciplinary environment and qualification (previous experience of practical laboratory, publications).

8

Language proficiency requirements by each hosting institution are given below under specific eligibility criteria.

SPECIAL ELIGIBILITY REQUIREMENTS

As explained earlier 13 ESRs will be doing their Ph.D. at GU, 4 at METU, 3 at ITU and 2 an IZTECH under the supervision of selected supervisors. In addition to general eligibility criteria, those supervisors demand special requirements/eligibility criteria for the research topics as given below:

ESR No.	Institution	Additional Special Criteria
1	GU/ EKTAM	GRE \geq 158 and/or equivalent of this score of GAT. GPA \geq 3.00/4.00, (MSc.), UGGPA \geq 2.7/4.00 (BSc.) TOEFL/IBT \geq 79
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14	METU	GRE \geq 157 GPA \geq 3/4.00, (MSc.), *If you do not satisfy the 'GPA \geq 3/4.00, (MSc.)'condition then your GRE should be GRE \geq 165. TOEFL/IBT \geq 86
15	METU	GRE \geq 161 GPA \geq 2.72/4.00, (MSc.), UGGPA \geq 2.72/4.00 (BSc.) TOEFL/IBT \geq 79
16		
17	METU	GRE \geq 157 GPA \geq 3/4.00, (MSc.) TOEFL/IBT \geq 84
18	ITU	GRE \geq 158 and/or equivalent of this score of GAT GPA \geq 3.00/4.00, (MSc.), UGGPA \geq 2.7/4.00 (BSc.) TOEFL/IBT \geq 79
19		
20		
21	IZTECH	GRE \geq 158 GPA \geq 3.00/4.00, (MSc.), UGGPA \geq 2.7/4.00 (BSc.) TOEFL/IBT \geq 79
22		

IMPORTANT NOTICE

- Potential ESRs can apply via the following link: a2m2tech.org.tr/Account/Register
- The deadline for application is 30 November 2021.
- Applicants not including all the requested documents will be considered ineligible. Applications considered ineligible will be given the opportunity to submit a request by sending an email to "a2m2tech.cofund@gazi.edu.tr" address for redress where an applicant believes the result provided is incorrect. A period of 7 days will be given for the redress.

SELECTION PROCESS

The selection process will be carried out in four different steps:



Eligibility Check:

This will be conducted by the PMT.



External Evaluation:

This will be done by Scientific Evaluation Committee (SEC) which will be composed of fifty experts in the field. They will be in charge of evaluating the CVs and other supporting documents. At this stage merit based evaluation will be conducted as explained in Guide for Evaluators.



Interviews:

44 best ranked candidates will be remotely interviewed by six experts, three of which will be independent external experts from outside the partnership with no conflict of interest. The rest of the three members will be from: one representative of the beneficiary GU/EKTAM, two representatives from other hosting universities (GU, METU, ITU, IZTECH).



Final Scoring and Ranking:

PMT will produce the final ranking.

After the final ranking list is produced, those ranked as ESRs will be asked to sign an acceptance letter within a period of 15 days to secure their fellowship. It is ensured that there will be no discrimination against researchers on the basis of gender. Therefore, women are encouraged to apply. It is ensured that equality and non-discrimination principles, gender, age, nationality, race or any other ethical-related issues will be utmost considered during the application and selection process.