

Newsletter No2

March 2017

Coordinator:



Partners:



Dear Readers,

We are happy to announce the release of our second AMaTUC newsletter. During the last months, the AMaTUC partners have been busy performing bi-lateral staff exchanges with TUCN, organise training workshops and network with relevant research and innovation organisations from Europe and beyond.

In this newsletter you will learn about the advancement of project activities and other initiatives taken by our motivated and dedicated consortium of partners:

-  *Summary of bi-lateral staff exchanges;*
-  *Organisation of training workshops;*
-  *Participation in international conferences;*
-  *Forthcoming events.*

To be up to date with the latest project news, visit our [AMaTUC website](#) and register to our mailing list to receive the next newsletters as soon as released.

AMaTUC Team





Staff exchanges between TUCN and LbU

During the first period, a large number of experts from the Technical University of Cluj-Napoca (TUCN) and Loughborough University (LbU) participated in the staff exchanges Programme. A total of 10 Romanian scientists visited the British partner LbU to share knowledge and be trained on topics relevant to Additive Manufacturing (AM) such as SLS/SLM manufacturing techniques as well as on computer-aided engineering and finite element modelling.

In October 2016, the partner LbU organised a visit to the company “Dr. Martens”, producing customised shoes, in order to present a case study of technology transfer where new AM applications could be developed at research level to fulfil the industrial needs of production companies.



New joint research directions between LbU and TUCN were established, and Prof. Balci from TUCN decided to purchase a 3D printer from RP Support Ltd. in order to build and test new customised composite parts.



In February 2017, Prof. Campbell gave a training on the improvement of SLM/SLS processes capabilities at TUCN. The partners took the opportunity to visit the Transylvania University of Brasov to discuss further cooperation with the university and Romanian industry.

The staff exchanges of TUCN’s staff had a beneficial effect on their research work. A number of scientific papers have been published, notably in the peer-reviewed journals: Journal of Optoelectronics and Advanced Materials and Studia Chemia.

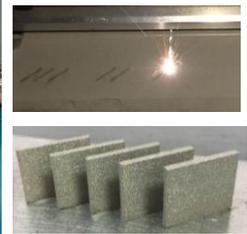
TUCN also filled a patent application, named “Procedure and composite material to produce customised synthetic wall tiles’.



Staff exchanges between TUCN and FH-Aachen

An impressive number of staff exchanges took place during the first project period between Technical University of Cluj-Napoca (TUCN) and Aachen University of Applied Sciences (FH Aachen). Several training modules have been developed for the particular needs of TUCN's staff, such as 'Industrial AM parts made of composite materials' and 'AM techniques to combine with RT of metal parts'.

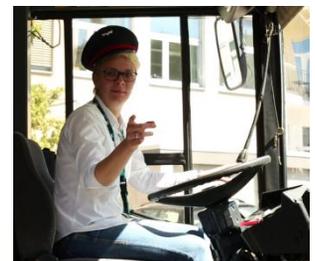
The partners decided to improve the existing SLM process at TUCN as a subject for the knowledge exchange. FH Aachen improved the use of TUCN's equipment (SLM 250) to print with different materials such as stainless steel. They helped to determine the optimal process parameters and the first results are positive even if further work is required.



In November 2016, a group of seven (7) researchers from TUCN visited their German counterparts they were invited to meet representatives from MAN Company in Munich, to learn from the industrial experience of the AM applications implemented within this German vehicle manufacturer.

The outcomes of the staff exchange consist of several scientific publications submitted to different journals and conference proceedings. TUCN and FH Aachen also published a joint publication in the 'Physics Procedia Elsevier' and a joint paper during the COSME'16 conference.

Ms. Laura Thurn is a technical staff (Meng) at FH Aachen, a motivated team member of the AMaTUC project and occasionally the [FabBus](#) driver. We are happy to announce that she registered for a part-time PhD at TUCN.





Training workshops

On the 4 November 2016, the coordinator TUCN organised the 3rd project workshop on “Additive Manufacturing, from research to industrial applications” as a satellite event of the COSME’16 conference. Overall the AMaTUC workshop attracted 36 participants and focus on the following research and innovation topics:

-  “Academic research on Additive Manufacturing”
-  “Training on AM and Industrial Applications”



Participation to international conferences

The AMaTUC team participated in several international conferences in Europe and worldwide to promote the project and the excellence of the partners, especially TUCN. The partners already participated to ICPR-AEM & QIEM 2016 (Romania), MCP-CE 2016 (Serbia), iCAT RAPIDMAN (Germany), etc. The partners will continue this activity and you might have a chance to meet our representatives from TUCN, LbU, FH Aachen and Intelligentsia at the following conferences:



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www.amatuc.com

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