Improving ICT Knowledge
in the Textile and Clothing Industry

Carla Hertleer[1,3]*, Angel Terziev[2], Benny Malengier[3], Lieva Van Langenhove[3], Hassan Saeed[4], Sanja Ercegovic Razic[5] and Aleksandar Dimov[6]

[1]AUTEX, Technologiepark 70A, Zwijnaarde, Belgium

[2]Technical University of Sofia, Kl. Ohridski Blvd., Sofia, Bulgaria

[3]MaTCh, Ghent University, Technologiepark 70A, Zwijnaarde, Belgium

[4]Institute of Textile Machinery and High-Performance Material Technology (ITM), Technische Universität Dresden, Germany

[5]Faculty of Textile Technology, University of Zagreb, Prilaz Baruna Filipovića 28, Croatia

[6]Faculty of Mathematics and Informatics, Sofia University, Blvd "James Bourchier" 5, 1164 g.k. Lozenets, Sofia, Bulgaria

*Corresponding author: Carla Hertleer, AUTEX, Technologiepark 70A, Zwijnaarde, Belgium

Opinion

The Textile and Clothing Industry is a traditional but important industry with around 160.000 companies and about 1.5 million employees in Europe [1]. Therefore, textile education is offered in several European Universities. Because of the evolution the Textile and Clothing industry is facing in areas such as manufacturing: automatic cutting systems, IT supported product design and manufacturing, robotization of task, the required skills of an employee are largely impacted. In current curricula in higher textile education, digital skills and entrepreneurship are often unjustly underestimated or even neglected. Therefore, the European project ICT-TEX (ICT in Textile and Clothing Higher Education and Business) [2] aims to provide an answer to this gap by developing a dedicated curriculum of "Information Technology in Design of Textile and Clothing" for students with an engineering bachelor's degree, for teachers and for staff members already active in the Textile and Clothing Industry.

The ICT-TEX project is an Erasmus+ Knowledge Alliance joining 12 European partners of universities (5), companies (4) and non-profit organisations (3). They are geographically spread over Europe and form a balanced group of expertise that is brought into the project. The Project is coordinated by the **Technical University of Sofia**, Department of Textile Engineering (Bulgaria). The other project partners are **Sofia University**, Faculty of Mathematics and Informatics (Bulgaria), **Ghent University**, the Centre for Textile Science and Engineering (Belgium), **Technical University of Dresden**, Institute of Textile Machinery and High Performance Material Technology (Germany), **University of Zagreb**, Faculty of Textile Technology (Croatia); **STOLL**, producer of knitting machines (Germany), **Materially**, International consulting network for innovative and sustainable materials (Italy), **MAK**, company for weaving, knitting and sewing (Bulgaria), **ALMA**, clothing production, and textile trading company (North-Macedonia); **SCIAT**, Specialized Cluster Institute for Apparel and Textiles (Bulgaria), **CIAPE**, Italian Centre for Permanent Learning (Italy), and **AUTEX**, the Association of Universities for Textiles (Belgium). The project started on 1 January 2020 and runs for 3 years.

The syllabuses developed within the ICT-TEX project cover several areas of the textile and clothing industry: Design and Production of Woven Fabrics, of Knitwear, Technical & Smart Textiles, Finishing, Printing & Functionalisation and Apparel Design and Production. Next to

these areas, general skills such as ICT and Entrepreneurship are also treated. The courses are structured into 8 modules, The areas covered within the project are A MOODLE platform is selected to make the developed courses available for on-line self-study on the ICT-TEX and AUTEX [3] websites. For three of these modules, pilot training workshops were organised for students, teachers and staff to provide feedback on the delivered educational material and to improve where needed (Figure 1).
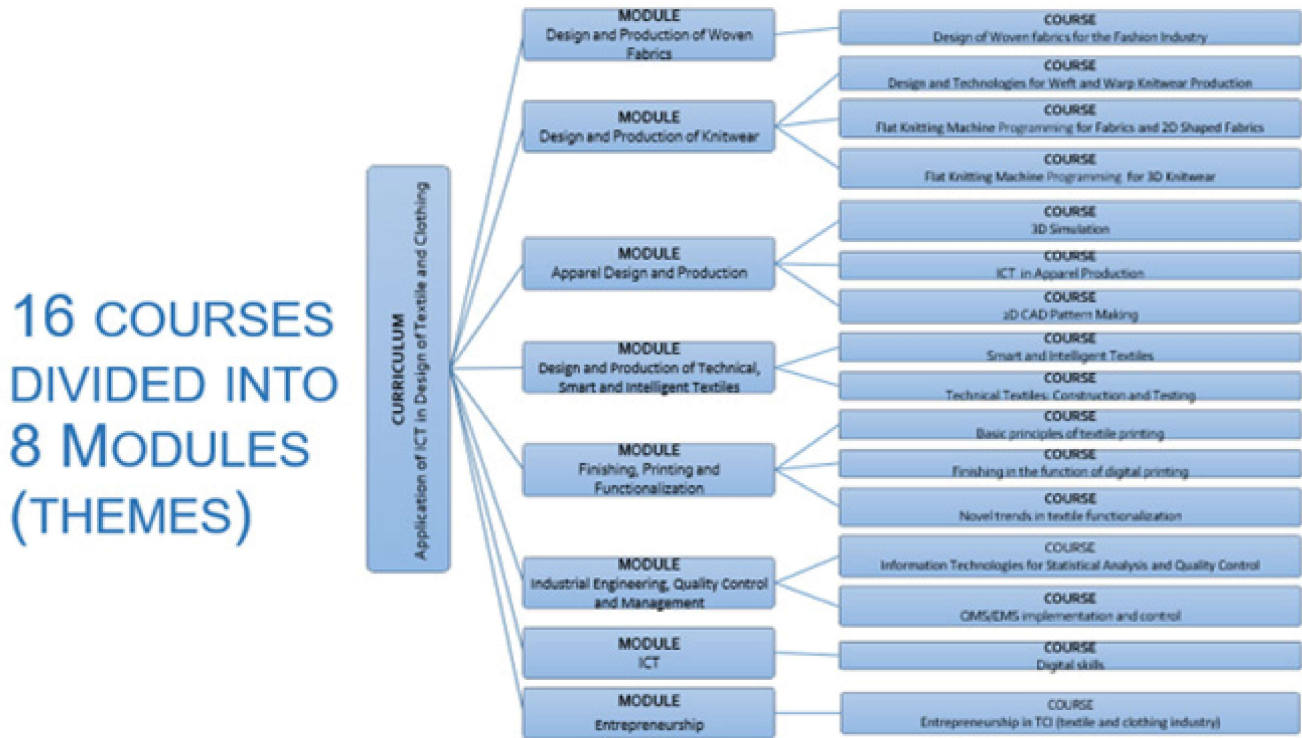
Figure 1: The curriculum and syllabuses developed within the ICT-TEX project are openly available on the project website for any professional in the Textile and Clothing Industry having the need to improve his/her skills in information technology, more specifically in one of the five topics worked on in this project.

The curriculum and syllabuses developed within the ICT-TEX project are openly available on the project website for any professional in the Textile and Clothing Industry having the need to improve his/her skills in information technology, more specifically in one of the five topics worked on in this project.

Acknowledgement

Disclaimer

The information and views set out in this document have been developed within the framework of the "ICT-TEX" project, funded by the European Commission's ERASMUS Plus Programme, Key action 2-Cooperation for innovation and the exchange of good practices, Action-Knowledge Alliance for Higher Education.

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

References

1. EURATEX (2019) Annual Report 2018.

2. ICT-TEX

3. AUTEX