



**Project funded by the EU Lifelong Learning Programme  
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## SALEIE Student Project in Assistive Technology Project 10

<b>Project Supervisor:</b>	Prof. Dan Mandru	<b>SALEIE partner:</b>	Technical University of Cluj-Napoca
<b>Project Title:</b> Braille Tactile Display - Display for learning Braille language			
<b>Project duration:</b>	3 years	<b>Project level:</b>	PhD project
<b>ECTS credits (if applicable):</b>		<b>Prerequisite requirements:</b>	Completion of Bachelor and Master programme
<b>Course Suitability:</b>	Bachelor of Engineering in Electrical Engineering/Biomedical Engineering		
<b>Project Description:</b>			
<p>This project aims to design a Braille Learning System for visually impaired or blind students under the direct supervision of a teacher through a software interface. The teacher will type characters in the interface which include virtual Braille representation and a microcontroller will receive and interpret the character type while generating commands to actuators based on paraffin thermal structure of an electromechanical module; The electromechanical module will include an active cell of Braille points, represented by linear thermal actuators based on Paraffin, with dimensions suitable for standard size Braille matrix, that will produce melting the wax and forming the Braille embossed points.</p> <p>This project links into the active <i>EU Lifelong Learning Programme "SALEIE"</i> ( <b>S</b>trategic <b>A</b>lignment of <b>E</b>lectrical and <b>I</b>nformation <b>E</b>ngineering in European Higher Education Institutions) and the work will be aligned to the area of assistive technologies to support students with disabilities.</p>			

The project descriptions are provided and also the contact details of the project proposer for more information or to discuss potential collaboration. These project descriptions are provided as ideas for other institutions to develop projects in assistive technology. If you want to refer to these project ideas, we would ask that you acknowledge the SALEIE project as follows:

"This project idea was developed as one of the project proposals provided under the EU Lifelong Learning Programme "SALEIE" (Strategic ALignment of Electrical and Information Engineering in European Higher Education Institutions). Project Reference No. 527877-LLP-1-2012-1-UK-ERASMUS-ENW Project funded by the EU Lifelong Learning Programme"

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<http://www.saleie.york.ac.uk>

Project Coordinator: Tony Ward, University of York

Email: [tony.ward@york.ac.uk](mailto:tony.ward@york.ac.uk)