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**PhD position (M/F) in the  
EU HORIZON 2020 MSCA-ITN TReSPAsS-ETN**  
(Reference: SN\_MT\_PhD\_privacy-preserving-biometrics\_022020)

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<b>Title</b>	<b>Cryptographic primitives for GDPR compliance</b>
<b>Department</b>	Digital Security
<b>Publication date</b>	02/2020
<b>Start date</b>	1 <sup>st</sup> June 2020
<b>Duration</b>	Duration of the thesis
<b>Description</b>	In order to comply with the General Data Protection Regulation (GDPR), biometric operations should be performed without disclosing any sensitive information. Homomorphic encryption and secure multi-party computation can be considered as the main cryptographic tools for the design of novel primitives as they allow some functions to be evaluated by one or multiple parties without discovering any information than what is needed. The integration of these tools, while delivering privacy protection, may impact on systems' operation/performance. Some complex operations cannot be supported by existing practical tools and therefore may need to be approximated by simpler operations. It is critical, however, that these approximations do not degrade security. The PhD programme will research privacy preserving biometric identification and authentication primitives by leveraging such advanced cryptographic techniques, while minimizing computational, memory and bandwidth costs and accuracy degradation.
<b>Eligibility</b>	Please, visit the recruitment page at <a href="https://www.trespass-etn.eu/recruitment.html">https://www.trespass-etn.eu/recruitment.html</a> for MSCA-ITN eligibility rules.
<b>Requirements</b>	The successful candidate will have a Master's degree in engineering, mathematics, computing, physics or a related relevant discipline. You will have strong mathematical, programming and communication skills and be highly motivated to undertake challenging research. Good English language speaking and writing skills are essential. Knowledge of French is not required.
<b>Application</b>	Please, send to the email address below (i) a detailed Curriculum Vitae, (ii) a motivation letter of two pages also presenting the perspectives of research and education (iii) names and addresses of three references (preferably one from your final year project supervisor) no later than <b>30<sup>th</sup> April 2020</b> .
<b>Contact</b>	Dr Massimiliano Todisco – <a href="mailto:todisco@eurecom.fr">todisco@eurecom.fr</a>
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*EURECOM benefits from a strong interaction with the industry through its specific administrative structure: Economic Interest Group (kind of consortium), which brings together international companies such as: Orange, BMW Group Research & Technology, Symantec, SAP, IABG.*

*EURECOM deploys its expertise around three major fields: Digital Security, Data Science and Communication Systems. EURECOM is particularly active in research in its areas of excellence while also training a large number of doctoral candidates. Its contractual research is recognized across Europe and contributes largely to its budget.*

*Thanks to its strong ties set up with the industry, EURECOM was awarded the "Institut Carnot" label jointly with the Institut Telecom right from 2006. The Carnot Label was designed to develop and professionalize cooperative research. It encourages the realization of research projects in public research centers that work together with socioeconomic actors, especially companies.*

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EURECOM specifically encourages women to apply with a view towards increasing the proportion of female researchers.

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