

Partner offer

Date (01/12/2021)

- **Relevant topic(s) in work programme**

HORIZON-CL4-2022-TWIN-TRANSITION-01-06: ICT Innovation for Manufacturing Sustainability in SMEs (I4MS2) (Made in Europe Partnership) (IA)

- **Quick description of the project concept**

- **Expertise proposition on:**
 - Advanced interfaces and collaboration within smart working environments such as collaborative robots.

- **Description of the expertise requested/proposed (up to 1000 characters)**

For five years, we work on the co-manipulation of robot in order to ensure the conservation of the operator gesture. We develop a robot control method based on its tool path computation from the measure of the force applied on the end-effector. The originality of our method is based on the definition of a virtual solid to compute its motion from Newton's second law. With this point of view, the robot motion should be transparent for the operator.



- **Keywords describing the expertise requested/proposed (up to 10 words)**

motion computation, co-manipulation, transparency

Organisation information

Organisation and country: Institut Pascal / Clermont Auvergne INP, France

Type of organisation:

Academic Research institute

Former participation in FP European projects?

Yes No

Web address: <http://www.institutpascal.uca.fr/index.php/fr/>

Description of the organisation:

Institut Pascal is an interdisciplinary research laboratory working in the strategic fields of the Engineering and Systems Sciences: process engineering, mechanics, robotics, physics for information sciences, health technologies. It is supervised by the University of Clermont Auvergne and the CNRS. Clermont Auvergne INP is an engineering school.

Contact details

Contact person name	Hélène CHANAL
Telephone	+33 4 73 28 80 75
E-mail	Helene.chanal@sigma-clermont.fr
Country	France