

 **ASIMOV**

**To PhD,
or not to
PhD, that
is the
question.**

**April 30
2021**

12:45-14:00

**PULSE
TU DELFT**



**DR. YASEMIN
VARDAR**



**GIOVANNI
FRANZESE**



**BRUNO
FERREIRA DE BRITO**



BRUNO BRITO IS A PHD CANDIDATE IN THE DEPARTMENT OF COGNITIVE ROBOTICS AT TU DELFT RESEARCHING DATA-DRIVEN MOTION PLANNING TECHNIQUES FOR AUTONOMOUS NAVIGATION AMONG HUMANS. BRUNO HOLDS A MASTER'S DEGREE IN ELECTRICAL AND COMPUTER ENGINEERING FROM THE UNIVERSITY OF PORTO. PRIOR TO HIS PHD, BRUNO WAS A TRAINEE AT EUROPEAN SPACE AGENCY IN THE GUIDANCE, NAVIGATION, AND CONTROL SECTION. AFTERWARDS, HE WAS A MARIE SKŁODOWSKA-CURIE EARLY-STAGE RESEARCHER AT THE FRAUNHOFER INSTITUTE FOR MANUFACTURING ENGINEERING AND AUTOMATION.



DR. YASEMIN VARDAR IS CURRENTLY AN ASSISTANT PROFESSOR IN THE COGNITIVE ROBOTICS DEPARTMENT AT THE DELFT UNIVERSITY OF TECHNOLOGY, AND THERE SHE IS LEADING THE HAPTIC INTERFACE TECHNOLOGY LAB (HITLAB). SHE IS ALSO A GUEST SCIENTIST IN THE HAPTIC INTELLIGENCE DEPARTMENT OF THE MAX PLANCK INSTITUTE FOR INTELLIGENT SYSTEMS, WHERE SHE WAS PREVIOUSLY A POSTDOCTORAL RESEARCHER. SHE EARNED HER PHD IN MECHANICAL ENGINEERING FROM KOÇ UNIVERSITY (ISTANBUL, TURKEY). HER RESEARCH AIMS TO CREATE NATURAL, COMPELLING, AND PERSONALIZED HAPTIC INTERACTIONS IN VIRTUAL ENVIRONMENTS. SHE INVESTIGATES THE SKIN DEFORMATIONS THAT OCCUR DURING INTERACTIONS WITH NATURAL SURFACES OR TACTILE INTERFACES AND THE RESULTING PERCEPTUAL EXPERIENCES. SHE ALSO DESIGNS NEW HAPTIC INTERFACES AND RENDERING ALGORITHMS TO EMULATE REALISTIC TOUCH EXPERIENCES IN VIRTUAL ENVIRONMENTS

[HTTPS://YASEMINVARDAR.COM/](https://yaseminvardar.com/)



GIOVANNI FRANZESE STARTED HIS PHD IN LEARNING AUTONOMOUS CONTROL IN COGNITIVE ROBOTICS AT THE TU DELFT TWO YEARS AGO. BEFORE COMING TO DELFT, HE SUCCESSFULLY ACHIEVED HIS BACHELOR IN MECHANICAL ENGINEERING AND HIS MASTER IN MECHATRONICS AND ROBOTICS AT POLITECNICO DI MILANO. HIS INTERESTS ARE FOCUSED ON ENHANCING ROBOT PERFORMANCE AND INTELLIGENCE LEARNING FROM HUMANS' DEMONSTRATIONS COMBINING THE MORE CLASSIC CONTROL THEORY WITH INNOVATIVE MACHINE LEARNING TOOLS. THE MAIN INVESTIGATIONS ARE ON LEARNING FROM NON-EXPERT USERS USING DIFFERENT TYPES OF INTERACTIONS, FROM KINESTHETIC TO TELEOPERATION CORRECTIONS.

THE GOAL OF HIS RESEARCH IS TO MAKE TEACHING EASIER, FASTER, AND MORE DATA-EFFICIENT. FOR THIS REASON, HE IS INVESTIGATING THE PROBLEM OF AMBIGUITY IN THE DEMONSTRATION WHEN FEW DATA ARE PROVIDED AND HOW IT CAN BE SOLVED THANKS TO INTERACTIVE CORRECTIONS. HIS DEVELOPED FRAMEWORK AIMS TO ACHIEVE ROBOT SELF-AWARENESS AND ENSURE THAT IT ALWAYS WOULD TAKE THE SAFEST DECISIONS.