



SOUTHEAST ASIA-EUROPE
JOINT FUNDING SCHEME FOR
RESEARCH AND INNOVATION

Mr Utku ÇİL

TOFAS Turkish Automobile Factory Inc.

Türkiye

**Advanced Quantitative Analysis for
Optimal Industrial Water Management
and Efficiency**

Topic 1

Brokerage Event – 9th Call

03 October 2024



My and my institution's area of expertise

Name: Utku ÇİL

Position: Advanced Technology Research Specialist

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Expertise: 7 years of experience on Horizon Europe, Instrument for Pre-accession Assistance (IPA), EUREKA and national funding mechanisms



TOFAŞ at a Glance

TURKEY'S
10th

BIGGEST INDUSTRIAL
ESTABLISHMENT

450.000

VEHICLES PRODUCTION
CAPACITY

4

DIFFERENT BRANDS

74

DEALER IN TURKEY

128

SERVICE POINT IN TURKEY

18% OF

TURKEY AUTOMOTIVE
INDUSTRY 2021
PRODUCTION

49%

2021 EXPORT
TOTAL SHARE IN SALES

228.554

2021 PRODUCTION (UNITS)

2021 MARKETSHARE

17%

2021
THE BEST AUTOMOTIVE
R&D CENTER
IN TURKEY

DISTRIBUTOR OF

6

BRANDS

FIAT EGEA

THE MOST PREFERRED
AUTOMOBILE IN TURKEY
FOR 6 YEARS

Models in Production

Passenger cars



EGEA SEDAN

DODGE



EGEA HB



EGEA SW



EGEA CROSS



Commercial vehicles



FIORINO

Research Project Portfolio



Completed EU Projects

1. **APSN**- Passive Safety Network
2. **SpotTrack**-Innovative Factory Energy Management
3. **AUTORECON**-Auto Machines for Assembly
4. **HeERO**
5. **X-Act**-Cooperative Robotic Systems
6. **AEROCEPTOR**-Intensive use of non-cooperative vehicles
7. **SME Robotics**- Robotic Assembly
8. **IMPROVE**-Electrified LCV
9. **ROBOPARTNER**-Human Robot Cooperative Assemb.
10. **Trustvehicle**-L3 Autodrive
11. **ASSURED**-Wireless EV Charging
12. **HI-FI ELEMENTS**-EV Comp. Test
13. **PICKPLACE**- Robotic Arm Grapper
14. **MULTICYCLE** - Chemical Recycle
15. **SYS2WHEEL**- Hub E.Motor
16. **Robust Welding**
17. **LightBee** - Al Battery Carrier
18. **Anti-microbial Textile**
19. **Caring Cars**
20. **AMALTHEAT**-une-up Software dev.
21. **CarCoDe** - Remote Diagnostics Service

Ongoing EU Research Projects(19 Proje)



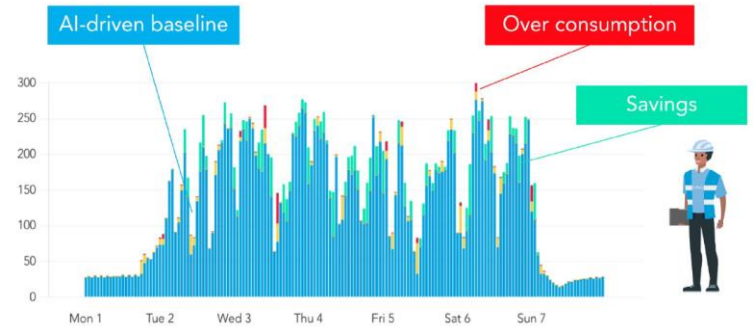
My proposed Research Idea for the 9th JFS Call

Research Topic:

Water Savings in Manufacturing by Leveraging Data Analytics & AI

Proposed Project Activity:

The proposal is dedicated to revolutionizing water management in industrial practices through the integration of advanced data analytics and artificial intelligence. By leveraging real-time data from sensors and water meters, the project aims to optimize irrigation schedules, reduce water waste, and enhance efficiency. The innovative approach combines machine learning algorithms with environmental data to create predictive models that inform the overconsumptions of the processes. This not only conserves water but also improves efficiency and sustainability. The project engages automotive and textile industry end-users to implement smart water management solutions in their manufacturing processes, further extending the benefits of water conservation. The Project stands at the intersection of technology and environmental stewardship, promising a future where smart manufacturing techniques contribute to a more sustainable planet.



Project Consortium

Partners that we are seeking for our project consortium:

Region: Southeast Asia / Europe / Southeast Asia or Europe

Expertise: Industrial Use Case

Role: Provide real-world industrial data and environments for implementing smart water management solutions. Collaborate in defining use case scenarios and help validate the AI-based solutions within their manufacturing processes.

Region: Southeast Asia / Europe / Southeast Asia or Europe

Expertise: Environmental Science / Sustainability Consulting

Role: Expertise in environmental impact assessment and sustainability. They will evaluate the ecological benefits of the implemented solutions and provide recommendations for improving water-saving strategies in manufacturing.

