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DI PAVIA

Pavia, 6th November 2023

To whom it may concern

Subject: 2-year research grant at the University of Pavia, Department of Civil Engineering and Architecture, on the hydrological-hydraulic modelling of the Pavia watershed to estimate nutrient and standard and emerging pollutant loads, within the project DORIAN

Title: Hydrological-hydraulic modelling of the Pavia watershed to evaluate nutrient and standard and emerging pollutant loads – DORIAN

Location: Department of Civil Engineering and Architecture, University of Pavia, Pavia, Italy

Duration: 24 months (approximate start date: January-March 2024)

Grant (net amount): about 1910 €/month.

Activities to be performed: The research fellow will take part to the Action 3 of the DORIAN Excellence Project. The research fellow will first identify the hydraulic connections of the main tributaries of Ticino River in the Pavia area, thus identifying the environmental pressures acting on each of them. The research fellow will participate in the hydraulic survey and environmental sampling operations, contributing to the measurement of the discharge of the Ticino River tributaries for different flow conditions. The research fellow will estimate the loads of nutrients and standard and emerging pollutants, integrating the discharge values with the concentrations provided by the analytical laboratories. The research fellow will proceed, with the most suitable software packages, such as SWAT+, to implement the hydrological-hydraulic and pollutant transport model, calibrating it over the collected data.

Team description: The researcher will join a multidisciplinary team (1 Full Professor, 3 Associate Professors, 3 Assistant Professors, 3 Ph.D. candidates), with expertise in environmental engineering, environmental hydraulics, limnology, environmental pollution, water quality, flood numerical modelling, numerical modelling of instream wood transport, dynamics of sediment transport agricultural hydraulics. The team will cooperate with the Water Research Institute of the National Research Council (CNR-IRSA) of Brugherio for part of the laboratory water-quality analyses.

Contact: Official information will be made available on: <http://www-assegni.unipv.it/bandi-dipartimenti-tipo-b/>. For any questions about the activities and the research plan, get in touch with: Elisabetta Persi, elisabetta.persi@unipv.it

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