

ABSTRACT

A SYSTEM FOR ESTABLISHING A DIGITAL INTERCONNECTION BETWEEN VESSELS FOR COLLECTION OF MICRO-PLASTICS IN A SECURED WAY

The present invention provides a system for establishing a secured digital interconnection between vessels and optimizing a route of a vessel (1) for collecting maximum micro-plastics (30) from an aquatic environment, the system comprising: a collection unit (40) through which water containing micro-plastics (30) flows, a first set of sensors (60) operationally coupled to the collection unit (40) and configured to generate a first set of data by periodically measuring amount of micro-plastics (30) flowing in the collection unit (40), a second set of sensors (70) operationally coupled to the vessel (1) and configured to generate a second set of data by monitoring local environmental conditions, a communication device communicatively coupled to the vessel (1) and configured to authenticate ID, timestamp and location of other vessels and then communicate the first set of data and the second set of data between other vessels in the aquatic environment, a processing unit (90) coupled to the first set of sensors (60), the second set of sensors (70) and the communication device and configured to receive and analyze the first set of data, the second set of data and a communicated data received from the other vessels to predicts the optimum route for collecting maximum micro-plastics (30) from the aquatic environment.

Fig. 4