Co-funded by the
Erasmus+ Programme
of the European Union

UNIVERSITY PRIORITY SETTING REPORT FOR THE PROVISION OF RESEARCH AND EDUCATION

UNIVERSITY OF RUHUNA, SRI LANKA

Integrating Talent Development into Innovation Ecosystems in Higher Education

586227-EPP-1-2017-1-BG-EPP

INNOTAL

Table of Contents

This report seeks to map priority areas for research and education provision at the University. It aims to provide a vision on how the institution can develop further to become innovation and skills provider for its region and locality, and how students and graduates should be involved in this process.

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

University priorities for research and innovation targeted at the economy and business enterprises

University of Ruhuna caters to about 9000 undergraduates studying in 10 Faculties, seven of which are science based: Medicine, Engineering, Science, Agriculture, Fisheries, Allied Health and Technology. The other three Faculties are Humanities, Management and Postgraduate Studies. Among the research activities taking place in science-based Faculties, a great majority are in the applied sciences. Thus, many research outcomes/outputs can contribute to economic advantages and societal improvements. Many research outputs by individual researchers or groups have contributed to the development of marketable products, patents and commercialized goods/instruments/machinery over the years, though the University did not get involved in any related matters officially.

University of Ruhuna initiated its Technology Transfer Office (TTO) in 2017 and all Faculties are represented through University Business Linkage Cells (UBLCs) established in Faculties. The mission of the TTO is to promote innovative research, support product development, and establish partnerships with industries/private sector for technology transfer and marketing of products. Researchers have the support of TTO and the opportunity to work with TTO to take their research outputs to the market if they wish to.

CURRENT PRIORITY AREAS FOR RESEARCH, EDUCATION AND INNOVATION

The research areas that are well developed are very specific for each Faculty. Below, we have presented them in detail.

Faculty of Agriculture

Top research areas include: improved bio-fertilizers and their applications, innovative food products, automation of tools in agriculture, breeding new varieties for improved production, formulation of innovative animal feeds to enhance productivity, management strategies for improved productivity, pest and disease management strategies, novel approaches and related products, exploring the potential of natural products for crop improvement and value addition, application of information technology for agriculture management, modelling and computer assisted approaches for agriculture technology, improved soil structures for efficient use of water in farming.

Faculty of Engineering

Top research areas are clustered in several broader areas:

- *Materials Research* - A number of research studies are undertaken for improving the quality of building service materials, introduction of novel eco-friendly lubrication materials and bi-materials.
- *Renewable Energy Research* - A number of research studies are focused on developing novel renewable energy harvesting methods. A special attention is given to solar power and ocean energy renewable sources.

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

- *Boat and Ship Building* - There are a number of research studies conducted in the areas of fishing vessel design, life cycle assessment of offshore structures, developing underwater communication system, novel ship repair technologies and min submarines.
- *Smart Grid Technologies* - Smart Grid technology is one of the prioritised research areas, where the focus is on managing the required demand from the distributed energy generation sources, which will enhance the utilisation of scattered renewable energy sources for electricity supply.
- *Customised Machinery Development for the Industries* - There are a number of projects conducted with the collaboration of Industrial Development Board (IDB) for developing customised machineries required for the SME sector production.
- *Home Automation* - There are a number of research studies conducted in the area of home automation and use of enhanced drone technology.
- *Biomedical signal processing & Underwater remotely operated vehicle*

Faculty of Fisheries and Marine Sciences & Technology

Top research areas include: water treatment technology, water conservation and management technology, innovative post harvesting technology for fisheries and aquaculture, weather forecasting models for better predictions, plant virology, and microbiology.

Faculty of Management & Finance

Top research areas include: entrepreneurship, market orientation, ethics in marketing, social media marketing, consumerism, financial performance, tourism, Supply Chain Management.

Faculty of Medicine

Top research areas include: genetic diagnosis, DNA Fingerprinting, clinical genetics and development of new genetic testing, prevention of congenital anomalies, craniofacial genetics and development of dysmorphic features diagnostic software, non-communicable diseases, infectious diseases and development of new diagnostic techniques, innovation and development of outbreak controlling methods and techniques in infectious diseases, food and water microbiology, innovation and development of new medical educational methodologies and materials, childhood development and nutrition, rare paediatric disorders, chronic kidney disease in children, lymphatic filariasis, Cutaneous Leishmaniasis, toxicology, child abuse and violence, occupational and public health and community ophthalmology, aging and dementia, bioactivity studies of medicinal plants for the development of nutraceuticals and cosmetic products, pathophysiology of diseases in-order to identify therapeutic targets, development of healthy food products.

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Faculty of Science

Top research areas include: natural product chemistry, environmental biotechnology/bioremediation, Environmental Science, plant pathology, plant virology, microbiology, toxicology and applied microbiology, tissue culture, economic crops, plant breeding, horticulture, plant physiology and biochemistry, weed biology, food science, invasive plant science, natural product development, conservation of bio diversity, development of biomarkers for environmental exposure, development of traditional treatments for combating non-communicable diseases, food security and safety, electrical and electronic innovative product development, information and communication technology development, optical instrument development, sound pollution analysis, bioinformatics.

Faculty of Technology

Top research areas include: research using nano-technologies, optical and electronic instrumentation and automation, scientific programming, Management Information Technology, electrochemical techniques, GIS and Remote Sensing, Data Mining, web services, e-commerce, research in molecular biology and biotechnology.

RESEARCH AND EDUCATION PRIORITIES FOR THE FUTURE DEVELOPMENT OF THE UNIVERSITY

Faculty of Agriculture: Transferring technical know-how on new knowledge, technologies and making farmers aware of good agricultural practices, value addition to various agricultural and food products, inventions and innovations on agricultural tools and mechanization, introduction of new varieties, inputs and technologies for improved agricultural production.

Faculty of Engineering: Boat and ship building, renewable energy systems, Smart Grid Technologies, customised machinery development for the industries, advanced materials research, Artificial Intelligence.

Faculty of Fisheries and Marine Sciences & Technology: Water treatment technology, water conservation and management technology, innovative post harvesting technology for the fisheries and aquaculture, weather forecasting models with better predictive power.

Faculty of Management & Finance: Tourism, entrepreneurial orientation, market orientation, supply and logistics management, consumerism.

Faculty of Medicine: Community, occupational and population research, innovations in genetic diagnosis & DNA fingerprinting, medical education, childhood development, Filariasis and Leishmaniasis research, toxicology, non-communicable diseases, bioactivity studies of medicinal plants for the development of nutraceuticals and cosmetic products, development of healthy food products.

Faculty of Science: Development of crude drugs, value added products from herbs and preparation of nutraceuticals, preparation of plant extractions, value addition to the products, development of data bases of

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

sensitive species, biomarkers, exposure of environmental contaminants, electrical and electronic innovative product development, information and communication technology development, land cover/land use change studies, horticulture, plant physiology and biochemistry, production of herbicides.

Faculty of Technology: Nanotechnology, Mechatronics, Robotics, Instrumentation, materials for application, remote sensing, Iimage Processing, IT in agriculture, web-based GIS applications, Data Mining, big data analysis, molecular biology and biotechnology, medicinal plants.

POTENTIAL EXPANSION OF EXISTING RESEARCH CENTRES

The following research centres have a demonstrated potential for expansion:

Faculty of Agriculture: Food processing centre for value added products and trainings

Faculty of Engineering: The Southern Centre for the Naval Studies and Shipping

Faculty of Medicine:

- Molecular Genetic Laboratory (MGL)
- Filariasis Research, Training and Service unit (FRTSU)
- Community ophthalmology centre
- Occupational health and service centre
- Infectious disease diagnostic lab in Microbiology
- Centre for development of therapeutic drug products.

POTENTIAL OPENING OF NEW RESEARCH CENTRES

Considering the current priorities and resources, a number of new research centres can be a welcome addition to the research ecosystem at University of Ruhuna.

Faculty of Agriculture: Centre for transferring technological know–how and novel methodologies and products

Faculty of Engineering:

- Centre for innovation and entrepreneurship creation
- Centre for advanced environmental research
- Centre for advanced manufacturing and factory automation
- Centre for Smart Grid Technologies
- Centre for advanced automobile technologies

Faculty of Fisheries and Marine Sciences & Technology:

- Centre for marine and coastal resource management
- Centre for surface and groundwater assessment

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

- Centre for fisheries and aquaculture development

Faculty of Medicine:

- Research and service centre for non-communicable diseases
- DNA forensics and fingerprinting
- Cytogenetic diagnostic lab
- Public health nutrition centre
- Food and water microbiology centre
- Leishmaniasis clinic
- Neuroscience lab

Faculty of Science:

- Biodiversity research centre
- Natural product development centre
- Connection to private sector to fulfil their research requirements
- Incubator cell for inventors
- Faculty workshop

Faculty of Technology: Invention and innovation development laboratory

POTENTIAL EXPANSION OF COLLABORATIONS WITH BUSINESS OR CREATION OF NEW COLLABORATIONS

There is potential for more international collaboration in several specific areas in the various Faculties of University of Ruhuna.

Faculty of Agriculture: Value addition, mechanization and innovative agricultural tools; testing and introduction of novel products, varieties and inputs, including exploring indigenous genotypes and varieties.

Faculty of Engineering: There is a potential opportunity for creating collaboration with the ship building industry around the world. The Faculty of Engineering also has opportunities to collaborate in the area of green energy technologies and sustainable manufacturing technologies.

Faculty of Fisheries and Marine Sciences & Technology: There is a potential for expansion of the existing international collaboration via the China-Sri Lanka Joint Centre for Education and Research at the University of Ruhuna. This collaboration is in particular focused on developing higher education in the field of Oceanography, Marine Sciences and Marine Geology. Another existing international collaboration that can be exploited is that between Taiwan and Sri Lanka on developing research in fisheries and aquaculture.

Faculty of Medicine: The Faculty can expand the collaboration initiatives with AIIMS University, India; TFGH, LFSC Atlanta, USA; Washington University, St. Louis, USA; Aichi Medical University, Japan; Duke University, USA; Amsterdam University, Netherlands; Fudan

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

University, China; Maytricht University, Netherlands.

Faculty of Science: The Faculty sees potential in expanding collaboration on research and development with Kanagawa University, Japan, with Sahndong Analysis Centre, China, and the collaboration with CERN accelerator research facility.

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

University priorities for research and innovation targeted at inclusive economic growth

CURRENT AREAS OF RESEARCH, EDUCATION AND INNOVATION RELATED TO INCLUSIVE GROWTH

Top University priorities for areas of research and innovation targeted at inclusive economic growth include:

Faculty of Agriculture: The Faculty can assist inclusive economic growth through various outreach programs aiming at educating and transferring knowledge to farming communities and other stakeholders. Such efforts can involve using already available resources and knowledge or searching for new knowledge. It is important to provide accurate and precise technologies and assess how those technologies can be applied in the local context.

Faculty of Engineering: The Faculty could contribute towards inclusive economic growth by providing assistance to build the capacity of local industry by supporting innovation and entrepreneurship development, especially for the local manufacturing sector. Examples of local industries that should be targeted are: the handloom industry, the tea industry, the boat building industry, the construction industry (in particular, in the area of research and innovation on economical new material). Additional areas of research of the Faculty that could contribute to inclusive economic development are alternative energy sources, and waste and water management.

Faculty of Fisheries and Marine Sciences & Technology: The Faculty can assist by providing knowledge and research in the following fields:

- Management of fishery resources by introducing resource management technology, supporting the manufacture of new products using fish waste and offal from the fish industry and generating new employment opportunities
- Enhancement of the aquaculture (fish, sea weeds, etc.) in view of generating new employment opportunities
- Introduction of ornamental fish and aquatic plant cultural centres to generate new employment opportunities for youth
- Water treatment for providing safe and clean drinking water and water supply for rural areas
- Enhancing small scale industries by introducing wastewater treatment technologies

Faculty of Management & Finance: Researchers at the Faculty work closely with tea planters in the southern region.

Faculty of Science: The Faculty can assist by providing knowledge and research in the following fields:

- Innovative products from medicinal herbs and commercialization in order to contribute to the growth of the national economy and to more employment, especially among young farmers who can be potential suppliers of herbs and other herbal products for new drugs/treatments
- Supporting entrepreneurs for sustainable growth

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

- Development of low cost quality products for local market

The Faculty can further help local industries through research partnerships. Positive impact has been demonstrated by the many outreach programmes conducted by undergraduates in local communities, hospitals, schools, etc.

Faculty of Technology: Graduates of the Faculty are likely to be employed mostly in local industries (Electro-Mechanical, software development, etc.), because the education they receive at the faculty is application oriented. This is the main priority of the Faculty.

AREAS OF RESEARCH AND INNOVATION TARGETED AT INCLUSIVE ECONOMIC GROWTH IN WHICH THE UNIVERSITY CURRENTLY EXCELS

Faculty of Agriculture: Surveys on agricultural issues in the southern province especially in paddy cultivation, popularization of mushroom cultivation among rural community and specially women, use of technologies and mobile application in agricultural improvement, value addition to various food products, training and assessments of the entrepreneurial skills of farmers.

Faculty of Engineering: Boat and ship building and machinery development for the SME sector of the Southern Province, machinery development for the handloom industry, waste management and economical new material for the civil construction industry.

Faculty of Fisheries and Marine Sciences & Technology: Manufacture of new products using fish waste and offal from fish industry, enhancing aquaculture, introduction of ornamental fish and aquatic plant cultural centres, water treatment for providing safe and clean drinking and supply for rural areas, waste water treatment technology for small scale industries to achieve waste water quality criteria.

Faculty of Management & Finance: Empowering women entrepreneurs.

Faculty of Science: Research for value added product development, low cost quality product development, research on sound pollution and creation of sound level maps, land use/land cover maps – coastal change monitoring.

Faculty of Technology: Research in nano scale systems, material development, GIS and remote sensing, research on medicinal plants.

FUTURE RESEARCH AND EDUCATION PRIORITIES TARGETED AT INCLUSIVE ECONOMIC GROWTH

In the future, the following research areas are expected to become more and more important:

Faculty of Agriculture: Database development on agriculture in the Southern Province, providing training on scientific and novel approaches in agriculture productions, studies on value added products, exploring potential of unexplored crops for improved products and market.

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Faculty of Engineering: Novel materials for the boat and ship building, ship repair technologies for the ship building sector, new condition monitoring techniques and underwater welding technologies, underwater communication technologies, new material for the civil construction industry, alternative energy sources.

Faculty of Fisheries and Marine Sciences & Technology: The current priorities are likely to continue to be important also in the future.

Faculty of Management & Finance: Women entrepreneurships and tourism

Faculty of Science: Student engagement in community development activities through Active citizen programme, low cost product development (inclusive innovation), promoting invention/innovation activities in schools in the area and in the university, research activities in analytical chemistry and natural product chemistry, research studies in Environmental Science, horticulture research, Information and Communication Technologies.

Faculty of Technology: Nano materials and their application targeting value addition to locally available raw material, IT in agriculture (especially in precision agriculture) to enhance productivity and efficiency, value addition to locally available medicinal plant extracts.

POTENTIAL EXPANSION OF EXISTING RESEARCH CENTRES

Faculty of Agriculture: Currently there is no dedicated research centre in the areas mentioned above.

Faculty of Engineering: There is potential for expanding the Southern centre for navel studies and shipping.

Faculty of Science: There is potential for the development of infrastructure for advanced analysis.

POTENTIAL OPENING OF NEW RESEARCH CENTRES

Faculty of Agriculture: The Faculty will benefit from creating a Technology Transfer Office.

Faculty of Engineering: The Faculty would benefit from opening a centre for innovation and entrepreneurship creation.

Faculty of Fisheries and Marine Sciences & Technology: There is identified need to create a centre for marine and coastal resource management, a centre for surface and groundwater assessment, and a centre for fisheries and aquaculture development.

POTENTIAL EXPANSION OF COLLABORATIONS WITH BUSINESS OR CREATION OF NEW COLLABORATIONS

Faculty of Agriculture: There is potential for engaging different stakeholders in new collaborations in the above areas through establishing new public-private partnerships.

***Faculty of Engineering*:** The University should collaborate with global partners to develop innovation and entrepreneurial capacity.

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Faculty of Science: There is potential for industrial collaboration for product development and commercialization. The creation of an innovation/invention cell would be especially beneficial.

Faculty of Technology: Staff, students and industry collaborations to develop the quality, efficiency and productivity of local industries can be intensified through technology transfer to industries.

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

University priorities for research and innovation targeted at pressing challenges facing societies in Southern and Southeast Asia

CURRENT PRIORITY AREAS OF TEACHING AND RESEARCH RELATED TO THE COMMON CHALLENGES IN THE REGION OF SOUTHERN AND SOUTHEAST ASIA

Faculty of Agriculture: Nutritional and value added products, minimization of pesticide usage in agriculture through alternative approaches, studying crop adaptations on climate change and developing new varieties that can perform well under changed climates.

Faculty of Engineering: Solid waste management, quality of drinking water and irrigation water, alternative energy sources, flood analysis, waste water management.

Faculty of Fisheries and Marine Sciences & Technology: Developing new models for accurate weather and climate forecasting in Sri Lanka and in the Indian Ocean region, developing new methods to increase fish catch/fish harvest, enhancing the economy of aquaculture (food fish, ornamental fish), enhancing the economy of mariculture (sea weeds, marine fish), developing innovative techniques in drinking and wastewater treatment.

Faculty of Medicine - Genetic diagnostic and therapeutics, public and occupational health, food and water microbiology, childhood nutrition and growth, prevention of genetic and congenital anomalies, tackling gender base violence, control of non-communicable and infectious diseases.

Faculty of Science: Waste treatment, waste disposal methods, research on micro pollutants in rice and cereals.

Faculty of Technology: Research in nanotechnology for value addition to raw materials, study of new materials for solar energy conversion devices, IT in agriculture, especially in precision agriculture to enhance productivity, cost effectiveness and control the health problems faced by many farmers in the region. Research and development on ICT must be given a priority in all areas, as well as research on Biosystems technology and environment.

PRIORITY RESEARCH AREAS TARGETED AT PRESSING CHALLENGES IN WHICH THE UNIVERSITY CURRENTLY EXCELS

Faculty of Agriculture: Biodiversity studies on aquatic species, use of microbial biofertilizers on paddy cultivation, studies on impact of climate change on pests and diseases, crops, fish and animals, modelling and forecasting pests and disease outbreaks, development of farmer affordable SMART greenhouse/crop houses/mushroom production units.

Faculty of Engineering: Solid waste management, quality of drinking water and irrigation water.

Faculty of Fisheries and Marine Sciences & Technology: Developing new methods to increase fish catch/fish harvest, enhancing the economy of aquaculture (food fish, ornamental fish), developing new models for accurate weather and climate forecasting in Sri Lanka and in the Indian Ocean region.

Faculty of Medicine: Genetic diagnostics, public and occupational health, food and water microbiology, childhood nutrition and growth, prevention of genetic and congenital anomalies, tackling gender base

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

violence, control of non-communicable and infectious diseases.

Faculty of Science: Waste treatment, climate change research, research activities in environmental science.

Faculty of Technology: Nanotechnology and materials, instrumentation and automation, materials for renewable energy production and for the new technology development, IT in precision agriculture, software development, Biosystems technology and environment.

FUTURE RESEARCH AND EDUCATION PRIORITIES TARGETED AT PRESSING SOCIETAL CHALLENGES

Faculty of Agriculture: Technological innovations and applications in agriculture, networking and creating a web-based platform for every stakeholder to share information, studying performance of crops and animals and their various systems under future climatic factors and modelling.

Faculty of Engineering: Environment management for sustainable economy is one of a most important future education priority of the Faculty.

Faculty of Fisheries and Marine Sciences & Technology: The future priorities for the time being are the same as the current priorities.

Faculty of Science: Waste treatment and waste disposal methods, applications in GIS and remote sensing.

Faculty of Technology: Nanotechnology and its applications, automation of systems, instrumentation, software development research, IT for precision agriculture, renewable energy, technology in Biosystems.

POTENTIAL EXPANSION OF EXISTING RESEARCH CENTRES

Faculty of Engineering: Currently there are several research groups working in this area, but there is no any established research centre.

Faculty of Science: There is the need to procure instruments and research apparatus.

POTENTIAL OPENING OF NEW RESEARCH CENTRES

Faculty of Engineering: There is a great research potential for opening a centre for advanced environmental research.

POTENTIAL EXPANSION OF COLLABORATIONS WITH BUSINESS OR CREATION OF NEW COLLABORATIONS

Faculty of Agriculture: The Faculty needs to intensify research on the development of novel technologies and tools for future crop cultivation under changing climate conditions.

Faculty of Engineering: As the country's environmental and health sectors are mainly linked with Sri Lankan government managed organisations such as provincial councils, hospitals and central environmental authority, it is important to develop collaborative projects with those organizations. An opportunity also exists to support the start of new business targeting recycling technologies and energy generation

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

from solid waste.

Faculty of Science: There is potential for research collaboration with industries which generate chemical waste but have no proper waste water treatment methods.

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Areas of innovation and research activities in which students should be involved

Faculty of Agriculture: Students should be involved in all the outreach programs aimed at transferring technical know-how to farmers. In addition, development of novel approaches and technologies for improved agricultural productivity should be undertaken with student involvement. Such activities should be embedded in the educational programs.

Current curricula may not provide convenient environment for activities that necessitate more student involvement. For student involvement to become a reality, a rather drastic change in curricula will be necessary. However, there are clear benefits involved in such changes. Students need educational activities coupled with real-life learning. Those areas could be:

- Technological innovations and applications in agriculture and transferring knowledge towards farmers
- Development of database for networking and creating a web-based platform for stakeholders
- Engaging students in research on studying crops and animals and their various systems under future climatic factors and modelling
- Development of value added products
- Studying market information, value chain analysis and entrepreneurship research

Faculty of Engineering: It is expected that engineering students should be able to practice in industrial applications the theories learned during their studies. Undergraduates should engage with technology transfer activities, which drive innovation and entrepreneurial skills development in the local industry. Therefore, the priority areas that the students should engage are:

- Research and innovation for customized machinery development for the Sri Lankan Industry.
- Engagement in research activities for continuous process development in the manufacturing sector
- Renewable energy systems
- Artificial Intelligence
- Biomedical signal processing
- New material for civil construction industry
- Waste and water management

Possible limitations

Undergraduates are being prepared for becoming future engineers. Therefore, it is not wise to introduce limits to their engagement in research and innovation unless the particular area poses some heath or other hazards.

Faculty of Fisheries and Marine Sciences & Technology: Students can be involved in research and innovation in all of the areas that are currently being developed at the Faculty, as the nature of their involvement reflects their skills and knowledge.

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.