

About M. Tech. (IWRM) Course

Relevance

The proposed M Tech course in IWRM is a unique course and it attempts to look at water resources development and management from a holistic or ecosystem approach in the spirit of the recommendations of the Rio Summit, Dublin Conference and the Stockholm Water Meets. Integrated Water Resources Management recognizes the interdependency of different uses of water and the importance of participatory approach and gender issues. It is relevant for a country like India, where single sector approach is the usual norm.

Course Content in Nutshell

The course introduces the scholars to exercises to match water availability and use, seek to develop alternate land use and water allocation policies, legal and institutional arrangements from the local watersheds to the river basin scale, methods to achieve participatory approach, EIA, BCA and ecosystem approach in water management. The water quality considerations and other aspects related to water and environment, especially in the context of global climate change also will be covered by the course. Application of modeling, systems approach, isotopes, RS/GIS and DSS in water management will be covered. Professional training and thesis work are integral parts of the course.

Career Opportunities

Water management is gaining more importance in the context of water deficiency, water quality deterioration and degradation of aquatic ecosystems. Since water resources development and management in future are going to be based on IWRM, there will be considerable opening for those specialized in this area in government and private sectors. The international agencies, consultants and NGOs may require people with knowledge in IWRM for dealing with the water sector.

Eligibility

Graduates in engineering and postgraduates in physical science subjects with at least one subject dealing with mathematics are eligible for this two-year interdisciplinary course.

About Karunya University

The Karunya University is the accomplishment of the Vision of its Founders, **Dr. D G S Dhinakaran** of revered memory and **Dr Paul Dhinakaran**, the present Chancellor. Started as an Engineering College in 1986, it attained autonomous status in 2000 and became a Deemed University in 2004. The technical programmes of the University conform to national norms and it was accredited A Grade by NAAC. The University has around 7000 students residing in the campus and around 400 well qualified teaching faculty. The University offers undergraduate, postgraduate and doctoral level programmes in almost all branches of engineering. Apart from this, MBA, MCA and other programmes in arts & science are also offered. The campus of the university with about 700 ha is a bowl like formation in the lap of the Western Ghats.

How to Apply

Application form and prospectus can be obtained from the Admissions Officer, Karunya University, Coimbatore - 641 114, Tamil Nadu, India by sending a crossed DD(Rs.20/-) drawn in favour of 'THE REGISTRAR, KARUNYA UNIVERSITY' payable at COIMBATORE. The candidates should send the filled-in application form along with a DD for Rs. 500/-. The fee structure is displayed on the website. Application form can also be downloaded from: www.karunya.edu

For further information, please contact:

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Director

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WATER INSTITUTE

M.Tech. Course in Integrated Water Resources Management (IWRM) ADMISSIONS 2012



Karunya UNIVERSITY

Karunya Institute of Technology and Sciences
(Declared as Deemed-to-be-University under sec.-3 of the UGC Act, 1956)



Genesis of Water Institute

The Water Institute - a Centre of Excellence of Karunya University came into existence in August 2008. It was the fulfillment of the vision of the Founders of the University to make use of science and technology to address basic social issues, especially those pertaining to livelihood. The institute is perhaps the first of its kind to be started in a university in India to address the multifarious functions associated with the water sector, namely, academic programmes, R&D, extension, consultancy and collaborative research. The Institute offers a unique postgraduate course in Integrated Water Resources Management (IWRM) for graduates in engineering and postgraduates in physical sciences.

More about the Institute

Vision

' To achieve scientific water management and water security for all, especially those in the semi-arid zone, with the application of academic, scientific and other relevant inputs.'

Mission

' To impart higher education, to carry out research, to build capacity, and to solve location-specific problems for achieving sustainable water resources management, especially in the semi-arid zones.'

Objectives

- Enhancing higher studies with special reference to water in the region
- Providing R&D input to water managers
- Encouraging collaborative research, exchange and twinning programmes
- Supporting government / private agencies through a consortium of consultants
- Transfer of technology, capacity building and extension activities

Research Areas

- Integrated river basin/ watershed studies
- Hydrology of wetlands, lakes and tanks
- Hydrologic extremes and climate change
- Forest and urban hydrology
- Hydrogeology of semirid zones
- Salinity intrusion in to coastal belt
- Water quality monitoring and treatment
- Soil and water conservation techniques
- Water harvesting and recharge techniques
- Crop water, and irrigation scheduling
- Micro and pressure irrigation
- Economic studies –pricing, BCA, opportunity costs
- Studies on water policy and law
- Mathematical modelling, systems approach, DSS

Laboratory Facilities

- Water Quality Testing Laboratory
- Water Treatment Laboratory



Highlights of the Institute

- 15 PhD scholars, who have done their Masters in IITs /NITs and universities abroad are pursuing their doctoral programme in the Institute.
- Water Institute in collaboration with School of Civil Engineering is involved in R&D projects funded by Ministry of Environment and Forests (MoEF) and Department of Science and Technology (DST), GoI, in the areas of management of Point Calimere wetland in relation to its drainage basins and application of isotopes to study the recharge of ground water caused by the tanks in semirid zones.



- Studies on electrochemical techniques for water treatment are in progress.
- MoUs have been signed between
 - Karunya University and Jacob Blaustein Institutes for Desert Research and also Ben-Gurion University, Israel
 - Karunya University and Department of Geology and Hydrogeology, RWTH, Aachen, Germany
 - Karunya University and Brandenburg University of Technology, Cottbus, Germany.



- The Institute has been carrying out consultancy works for Loktak Development Authority, Manipur; Japan International Cooperation Agency (jointly with M/s. Wilbur Smith Associates, Inc.); and Wetlands International.
- Under International Association for the Exchange of Students for Technical Experience programme, students from countries like Germany, Poland, Austria, Switzerland, Portugal, Ghana, Nigeria, Mongolia, Thailand have taken up their internship programme for 3 to 6 months. Two of the M.Tech (IWRM) students have taken up their internship in Germany and Brazil for 3 months.
- The Institute is also involved in awareness creation and capacity building programmes.
- Visiting Professors from reputed institutions are available for guiding the student community.