KERALA
UNIVERSITY
OF DIGITAL SCIENCES,
INNOVATION AND TECHNOLOGY
(ESTABLISHED BY THE GOVT. OF KERALA)

DIGITAL
UNIVERSITY
KERALA
Curating a responsible digital world

ADMISSION OPEN 2022-23

M.Sc. ECOLOGY

WITH SPECIALIZATION IN
ECOLOGICAL INFORMATICS

"DISCOVER YOUR OPPORTUNITY IN CURATING A RESPONSIBLE DIGITAL WORLD"

Study, work, and live on one of the most advanced campuses in God's own Country. Kerala University of Digital Sciences, Innovation and Technology (Digital University Kerala) Thiruvananthapuram came into being in 2020 when the Government of Kerala upgraded the Indian Institute of Information Technology & Management-Kerala (IIITM-K).

DUK invites applications to its second batch of MSc, MTech and PG Diploma programs for the academic year 2022-2023. As a student in these programs, you will form a part of an exciting learning environment on a verdant campus in Technocity, Thiruvananthapuram.

SCHOOL OF INFORMATICS

The School of Informatics is a frontier-less intellectual space that radiates computing across applied science and social science disciplines. We perceive informatics as the binder that can transform and levitate applied domains, which we increasingly rely on to address emerging challenges.

The academic programs of the School of Informatics are interdisciplinary and of high quality. We ensure our students develop the ability to comprehend issues holistically, think objectively, and imbibe skills that would help them find gainful employment or advance to a research career. A couple of years that one invests at the School of Informatics will return dividends in the future.

MSc ECOLOGY
(with Specialization in Ecological Informatics)

The future of humanity on Earth depends on our collective success to anticipate and alleviate ecological challenges. Whether localised or planetary, solutions to these challenges lie at the tri-junction of ecology, technology, and society. Today's ecological problems are increasingly complex, and arriving at a solution involves analysing vast data. Ecological Informatics helps to address these challenges by mastering the methods and developing the tools needed to distil information from data.

Ecological Informatics integrates ecology, computational science, informatics and social sciences to improve our understanding of ecological processes. This pioneering academic program will teach ecology and impart computational and informatics skills to students with a background in natural and physical sciences.
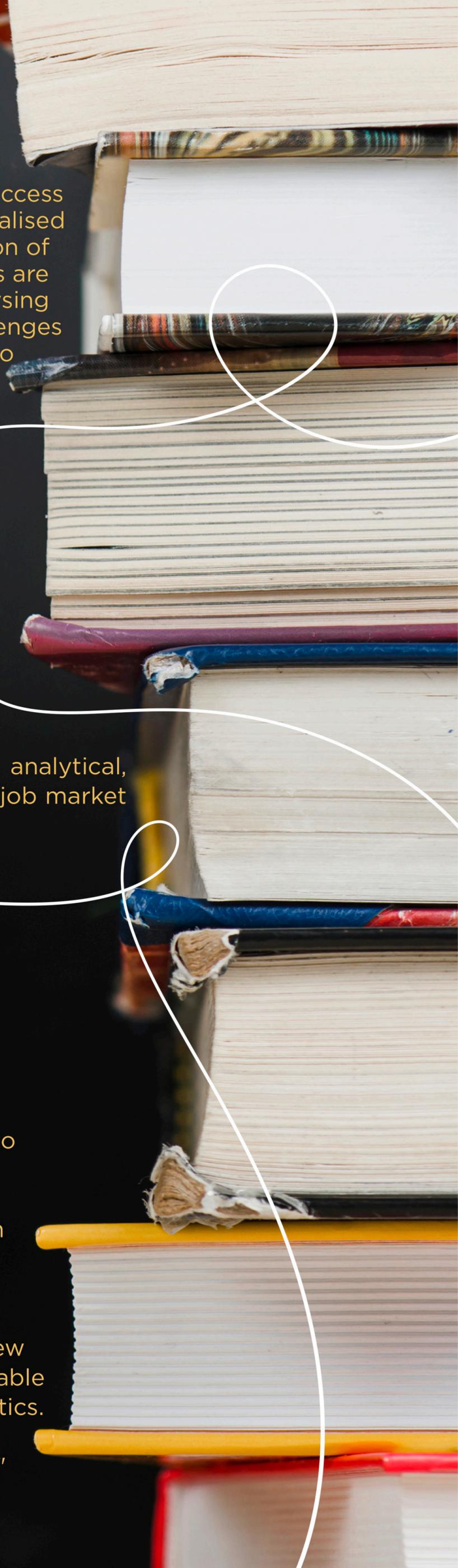
Students will develop skills in ecological data collection, analytical, decision making, data modelling etc. which is critical for the job market and pursuing research.

The legacy of the research and academia under Ecological Informatics began more than a decade ago in CV Raman Laboratory of Ecological Informatics (CVRLEI), IIITM-K and generated futuristic researchers through the Master of Philosophy (2009-2021) course. So far, the lab has produced more than 110 MPhil thesis, 52 national and international publications, 16 books including technical reports submitted to the Government.

The school of Informatics Digital University of Kerala maintain professional associations with National and International laboratories.

The rediscovery of Sir. CV Raman and the introduction of a new interdisciplinary domain - Floral Radiometry is one of the notable achievements of CV Raman Laboratory of Ecological Informatics.

The study on "Quantitative erosion on Traditional Knowledge" conducted at CVRLEI was resonated in the Indian Parliament.

CAREER OPPORTUNITIES AFTER MSc ECOLOGY, SPECIALIZATION IN ECOLOGICAL INFORMATICS

Ecologists, scientists, environmental data analyst, teaching, conservation biologists, naturalist, environmental innovators & entrepreneurs, decision scientists, etc. in corporate sector , Government, National and International organizations.

OTHER FEATURES

- Summer Project/ Internships in reputed industries, national & international institutes
- Field trips
- Research
- Guest lectures and corporate training
- Workshops
- Soft-skills enrichment
- Hostel facility (boys and girls)

ELIGIBILITY

B.Sc. Degree in Botany/ Zoology/ Life Science/ Chemistry/ Physics/ Ecology/ Environmental Science/ Geography/ Geology/ Microbiology/ Science/ Agriculture/ Forestry/ Horticulture/ Biotechnology/ Statistics/ Mathematics and allied areas

or

B. Tech/BE in Civil, Mechanical, Chemical, Environmental, Agricultural and allied disciplines with 60% marks.

DUAT qualified in subject-specific to Ecology or UGC/CSIR/ICAR- National Eligibility Test (NET) or valid GATE score in Ecology and Evolution/ Environmental Science. Engg. / Agriculture Engineering/ Civil Engineering/ Mechanical Engineering

MODE OF SELECTION

Prospective students will have to either (i) clear the Digital University Aptitude Test (DUAT) Or (ii) possess a valid GATE/NET score in a relevant discipline. The short-listed students will be interviewed and provisionally selected based on their cumulative performance in the interview and the qualifying test scores.

Application fee: RS.750/-(General) & RS. 325/- (SC/ST/Divyaang)

Website https://duk.ac.in/admission

STUDENT SPEAKS

I feel that this Ecology program at Digital University has a lot of skill sets to offer along with the knowledge base necessary for an ecologist. It is truly a new platform for learning more about ecology using informatics techniques. With the training I have received, here I can now say with confidence that I would excel in my research career in the coming years.
- Arya P. R. (B.Sc. Zoology)

To quote a famous saying, "The highest function of ecology is the understanding of consequences". Being a physics graduate, I began studying ecology with an understanding of the behaviour of matter in space and time. This course has given me more insight into the elaborate connections and relationships of diverse organisms and their surroundings. It humbles and excites me to realize what an intricate balance is a natural world set in. Now I am passionate to work towards sustainability and conservation of the environment and all living beings.
- Rahul .R (BSc Physics)

As a child I spent many hours observing butterflies, bees and birds. That pastime slowly became a passion to study animal interactions. Joining the MSc. Ecology course at the School of Informatics took my study of nature to the next level with an interdisciplinary approach. Through this course, I have developed many skills that would give me an edge in my career. I believe that my mathematical skills have improved, and I can now apply them to study complex patterns like aquatic food webs and bird flocks. - Akhil S Anil (BSc Zoology)

Whenever I get a chance, I explore the forests, rivers, lakes and coasts of Kerala and have been wonderstruck at the rich biodiversity of the Western Ghats. An eagerness to know what causes the diverse habitats on Earth led me to choose MSc. Ecology. I learnt that all ecosystems are a product of the biophysical components in that particular place. New vistas have been opened up to me through this course to explore the Earth we live in through field and Remote sensing techniques.
-Harikrishnan S (BSc Physics)

MSc. in Ecological informatics gives a massive opportunity to explore ecology unified with technology. It's at DUK that I learnt of the global reach basic science has when integrated with technology. The current scenario of environmental issues and wide areas for research makes the course eminent. I have been amazed at the skill sets I have developed like programming and statistics that I wouldn't have acquired elsewhere.
-Cimila Sibichen (BSc Botany)

MSc. Ecology, aligned with informatics in DUK, is for a student who wishes to study the conceptual mechanisms of the ecosystem and identify the need for immediate action towards sustainability. Here students are sensitized to the social element in science. As a geology student, I feel at home in this program where I can constantly converse with like-minded students and engage in many ideas for sustainable development to preserve the planet and the life on it.
-Malavika S Nair (BSc Geology)

When looking for suitable PG courses, I realized that it is crucial for me to choose an unconventional path to be uniquely skilled. I chose MSc Ecology at DUK with the belief that it would equip me to be in step with the new age discoveries of science. I was right! I am more technologically enabled after I enrolled at DUK. It's exciting to explore the many aspects of Ecological Informatics. This program facilitates advanced learning of ecological changes and broadens my future prospects.
-Sherin Maria Mathew (BSc Chemistry)

MASTER OF SCIENCE IN ECOLOGY
SPECIALIZATION IN ECOLOGICAL INFORMATICS
TWO YEAR PROGRAM(4 SEMESTERS)

HIGHLIGHTS OF COURSE-SUBJECTS

- DIGITAL ACCESS FOR COMMUNITY EMPOWERMENT
- FUNDAMENTALS OF ECOLOGY
- ECOLOGICAL STATISTICS
- ENVIRONMENTAL DATA AND INFORMATION MANAGEMENT
- INTRODUCTION TO COMPUTER PROGRAMMING
- MATHEMATICAL THINKING IN ECOLOGY
- ESSENTIAL BIOLOGY
- DIGITAL EXPERIENCE LABORATORY
- POPULATION, COMMUNITY AND ECOSYSTEM ECOLOGY
- SPATIAL ECOLOGY
- PROGRAMMING IN PYTHON
- BIO- INSPIRED DESIGNS AND ECOLOGICAL ENGINEERING
- DESIGN THINKING AND INNOVATION
- ECOLOGICAL DATA ANALYTICS & MODELLING
- SEMINAR /META-ANALYSIS
- SCIENTIFIC COMMUNICATION
- CONSERVATION BIOLOGY AND INFORMATICS
- ECOLOGICAL PHYSICS
- SOCIAL ECOLOGY
- ENVIRONMENTAL IMPACT ASSESSMENT AND RISK ASSESSMENT
- ENVIRONMENTAL LEGISLATION AND POLICY ENVIRONMENTAL, SOCIAL AND GOVERNANCE
- ENVIRONMENTAL SUSTAINABILITY

NUMBER OF SEATS 30

"Today, there's heavy interest in the ESG space (environmental, social, and governance). Globally, companies that invest in ESG outperform those that don't. Hence, we're seeing a rising demand for professionals who can apply technology to solve problems in areas such as conservation, sustainability, and climate change. Demand for this skill will skyrocket in the future. DUK's newly launched MSc Ecology program is timely, well thought-through, and addresses this strong industry need."

Gramener
Insights as Stories

GANES KESARI
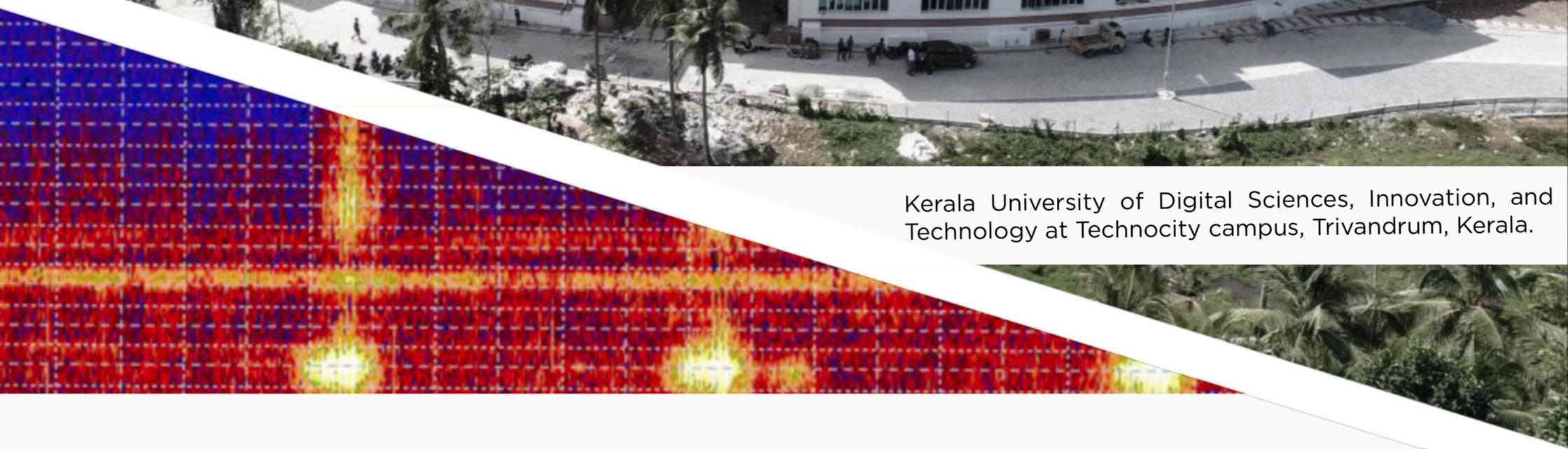Co-founder & Chief Decision Scientist, Gramener.

MSc Ecology current batch (2021) students and research scholars

CV Raman Laboratory of Ecological Informatics

Dr. Athira K, Assistant Professor, School of Informatics, measuring floral spectral reflectance from *Impatiens diversifolia*

Kerala University of Digital Sciences, Innovation, and Technology at Technocity campus, Trivandrum, Kerala.

IMPORTANT DATES

- Online Application Open from 24th Feb 2022
- Deadline for submission of applications: 1st May 2022
- Date of DUAT examination: 5th June 2022
- Announcement of DUAT results: 16th June 2022
- Dates of admission counselling/ interview: 20th June to 30th June 2022
- Date of publication of final selection list: 2nd July 2022
- Commencement of classes: 21st July 2022

ADMISSION HELPDESK

Mobile: +91 80 78 19 38 00
Landline: 0471-27 88 019
Email: admission-pg@duk.ac.in

FOR COURSE DETAILS

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CV RAMAN LABORATORY OF ECOLOGICAL INFORMATICS