

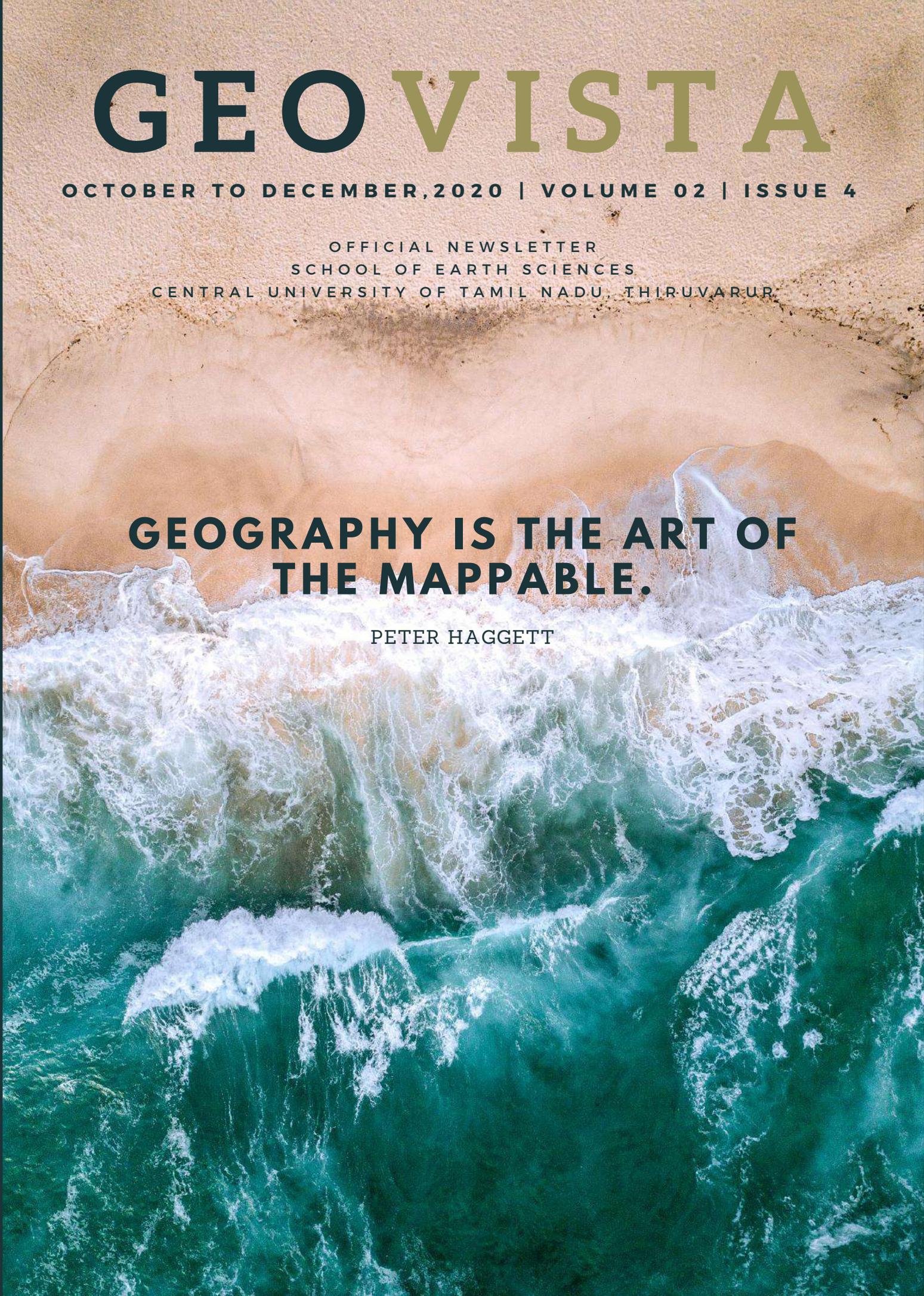
GEOVISTA

OCTOBER TO DECEMBER, 2020 | VOLUME 02 | ISSUE 4

OFFICIAL NEWSLETTER
SCHOOL OF EARTH SCIENCES
CENTRAL UNIVERSITY OF TAMIL NADU, THIRUVARUR.

**GEOGRAPHY IS THE ART OF
THE MAPPABLE.**

PETER HAGGETT



DEAN'S MESSAGE



Hi everyone,

Trust, all are safe and taking proper care.

This is the last issue of Geovista 2020, better late than never. We are still enduring the second wave of the pandemic but we are becoming resilient. During this time, there was no lacking in the academic schedule and all our students and scholars were very cooperative. In addition to our classes, Geoclub activities, Alumni activities and celebration of geographically important days were done cheerfully. Our faculty were busy in giving invited lectures, learning new skills and concepts through webinars. The final year students were busy in deciding their dissertation topics and the department welcomed three new scholars for their Ph.D. research work.

We look forward to another happening semester, hope it all gets better soon.

Prof. Sulochana Shekhar

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RESEARCH PUBLICATIONS

- Balasubramani, K., Leo George, S., Anusuya, K., Venkatesh, R., Thilagaraj, P., Gnanappazham, L., Kumaraswamy, K., Balasundareshwaran, A., & Nina, P. B. 2021. Revealing the socio-economic vulnerability and multi-hazard risks at micro-administrative units in the coastal plains of Tamil Nadu, India. *Geomatics, Natural Hazards and Risk*, 12(1), 605–630. (Impact Factor: 3.333) <https://doi.org/10.1080/19475705.2021.1886183>
- Panneer, S., Kantamaneni, K., Pushparaj, R., Shekhar, S., Bhat, L., & Rice, L. (2021). Multistakeholder Participation in Disaster Management-The Case of the COVID-19 Pandemic. *Healthcare (Basel, Switzerland)*, 9(2), 203. <https://doi.org/10.3390/healthcare9020203>
- Komali Kantamaneni, Sigamani Panner, Robert Ramesh Babu Pushparaj, Sulochana Shekhar, Lekha Bhat and Louis Rice (2021). Multistakeholder Participation in Disaster Management, *Public, Environmental & Occupational Health, Scholarly Community Encyclopedia*, <https://encyclopedia.pub/9117>

SPATIAL RESEARCH AVENUES

Smart City

Ms. Simran Sehrawat, Ph.D Scholar

Smart City is a concept that is globally interested. India steps into this in 2015 under the leadership of PM of India. Smart city is an ambiguous concept that has no standard definition. It can be thought of as a framework that integrated ICT with several aspects of life and provides practical solutions to numerous urban problems and at the same time improves the quality of life of the residents. We are living in a developing nation which is experiencing large shift from rural to urban areas. The lure of comfortable living and numerous economic development opportunities is attracting population towards urban areas. But the question is how to accommodate and provide the very basic standards of living to the existing and future urban dwellers/residents in the limited cities in the country. This can be done by learning from the developed nations who transformed their cities into smarter one. Having a city which is smart in all of its aspects be it governance, economy, transportation, education and of course, people can make living more sustainable. Being a Ph.D. Scholar at the Department of Geography, CUTN, I am looking forward to carrying out my research in understanding the true meaning of a smart city, its various components and how can I contribute through my research in advancing this concept and bringing it to the practical application. My respected guide Dr. Sulochana Shekar is providing me very helpful insights in understanding my area of interest and I believe under her guidance I'll be able to contribute my bit to the scientific knowledge.

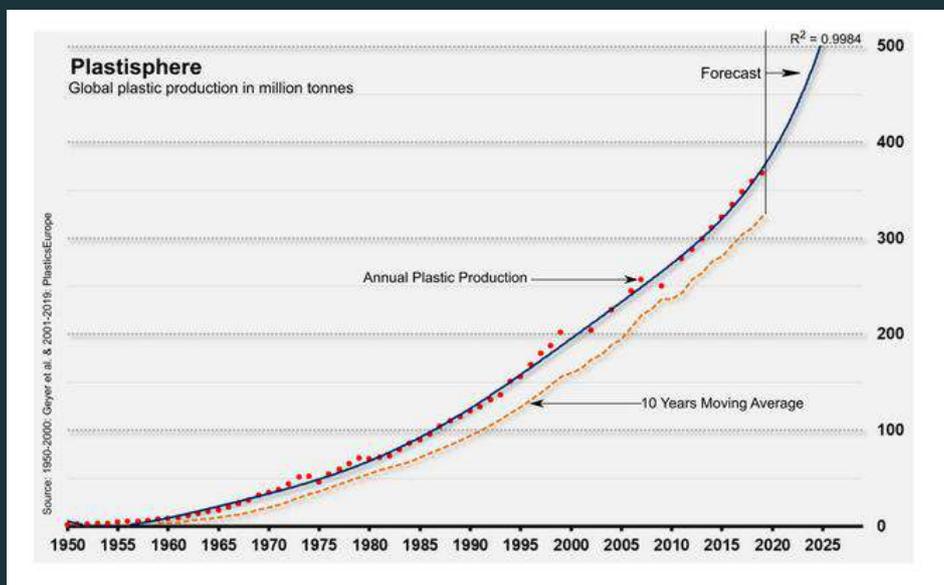


Image Source: Chennai Smart City Limited - <https://cscl.co.in/what-is-smart-city>

Plastisphere

K. Balasubramani, Assistant Professor

Owing to salient characteristics such as thermal, and corrosion resistance, electrical insulation, light weight, elasticity and low-cost, the plastic materials have found their utility in almost every sphere of human-habitat including, but not limited to, personal care, cosmetics, textile, agriculture, packaging, building construction, automobile, household, healthcare, safety and medical equipment and materials, shipping, maintenance, domestic cutlery items, toys, etc. Their low-cost availability, versatile and stable alternative nature to finite availability of natural materials made them essential and indispensable materials for a wide variety of industrial, agricultural, and domestic utilities. These benefits and utilities have driven their demand, leading to exponential growth in production (see figure) and made a new 'plastisphere' within all the natural spheres. The plastics were considered initially to be the environment-friendly substitutes that replaced the requirements for exploitation of natural materials; but ended up as a modern environmental menace, more serious than the man-made ceramics and glass. Current understanding is that plastic, in any form, found in the environment is purely anthropogenic. The studies on plastic pollution are widely varying from oceanography to chemical engineering, glaciology to ecotoxicology, biology to policy research, etc. With a very high rate of production and less than 30% of recycling characteristics, accumulation of non-degradable microplastic granules into the natural ecosystems is at an alarming rate that necessitates a study on spatial patterns of plastic distribution, which is critical to understanding the origin and ecological consequences of plastic pollution. The Department would like to engage this kind of spatial assessment of microplastics pollution in the Cauvery deltaic and coastal regions of Tamil Nadu in upcoming years.



PARTICIPATIONS AND PRESENTATIONS

Prof. Sulochana Shekhar

- Successfully completed online certificate course on ‘Sustainable cities’ conducted by SDG Academy, edX during Oct 2020.
- Delivered invited lecture on ‘Disaster resilient smart cities’ as a Resource Person for the Short-Term Course on "Disaster Management and Climate Change" held online from 17 to 21 October 2020, Organized by HRDC, UTKAL University, Odissa.
- Delivered invited lecture on ‘Geoinformatics Applications in Urban Environment’ as a Resource Person in 2nd Refresher Course in Geography through online mode organized by HRDC-Jawaharlal Nehru University on 19.11.2020

Dr. Aakriti Grover

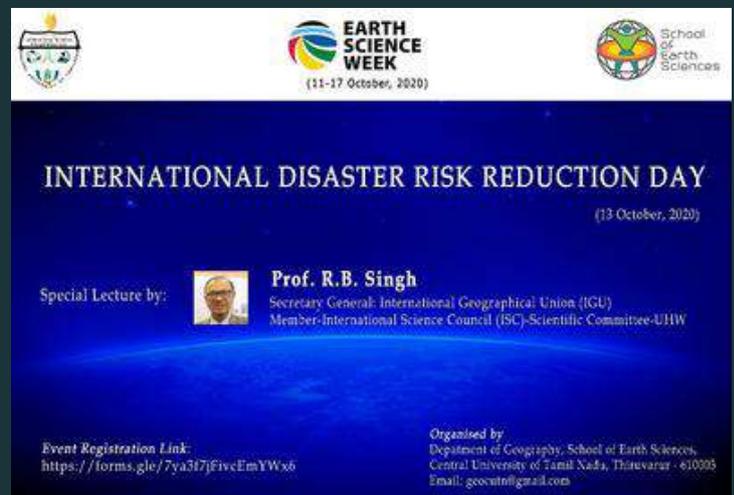
- Attended a webinar on ‘Virtual Biorepository resources for COVID 19 and other diseases of epidemic potential: a global grass roots conversation’ on Dec 10, 2020 organised by The Global Health Network
- Attended a webinar on WebGyan: Evidence-based implementation of COVID-19 public health measures by Dr. Gridhar R Babuwill on Dec 10, 2020, Bangalore organised by Life Science Cluster BLiSC
- Attended a webinar on Mapping the future with GIS organised by Geoinformatics Division, Faculty of Natural Sciences, JSS Academy of Higher Education and Research, Mysuru on 19 November 2020
- Attended a webinar on Mapping Urban Heat Fluxes during the Bay Area COVID-19 Shelter-in-Place by Dr. Christopher Potter, NASA Land-Cover and Land-Use Change (LCLUC) Program on 18 November 2020
- Participated in the virtual conference on “COVID-19 from Public Health Perspective” conducted by IIPS on 17 October 2020

Dr. K. Balasubramani

- Delivered a lecture on Integrated Watershed Resources Assessment - A Catalyst for Sustainable Landuse Planning in the National Webinar on Integrated Water Resource Management - Evolution, Development and Emerging Trends, Centre for Water Resources Management, University of Madras on 16 October, 2020
- Chaired the session on Application of Remote Sensing and GIS in Agriculture and delivered talk on Geoinformatics for Sustainable Agriculture Development in the International Conference on Innovative Agricultural Engineering and Food Technology, Sri Shakthi Institute of Engineering and Technology, Coimbatore during 23-24 December 2020
- Delivered a lecture on Geography of India and Natural Hazards in the 1st and 2nd Induction Programmes (Online) organised by the UGC-Human Resource Development Centre, University of Calicut, Calicut respectively on 31 October 2020 and 04 December 2020
- Delivered a lecture on Essential GIS Skills in the GIS Day Special Online Lecture on 'Mapping the future with GIS' organised by Division of Geoinformatics, Faculty of Natural Sciences, JSS Academy of Higher Education & Research, Mysore on 19 November 2020
- Delivered a lecture on Disaster Risk Management in the In-Service Training Programme (Online) for PRT Teachers of Kendriya Vidyalaya Sangathan-Hyderabad Region, KV No.2, Golconda, Hyderabad on 08 November 2020

Ms. Ankeeta Dey, Ms. Anupama A. J. and Mr. Joseph Sebastian (M.Sc. Geography Students) attended the "SMART" Online Training on Basics of Satellite Meteorology during 21-23 December 2020, organized by Space Application Centre, Ahmedabad

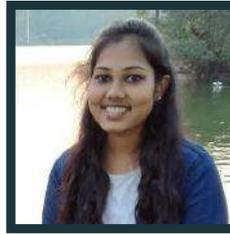
DEPARTMENTAL ACTIVITIES



INTERNATIONAL DISASTER RISK REDUCTION DAY

The Department has organised a special lecture to commemorate International Day for Disaster Risk Reduction on 13.10.2020 through Google Meet platform. The lecture was delivered by Prof. R.B.Singh, Secretary General of International Geographical Union, Member-International Science Council (ISC) and Scientific Committee-UHW. This year disaster risk is about Governance, the day celebrates how people and communities around the world are reducing their exposure to disasters and raising awareness about the importance of reining in the risks that they face. About 70 participants attended the special lecture out of 200 registrations from various parts of India. The lecture highlighted the importance of disaster management and risk assessment at various scales. E-certificate issued to all the participants and the recorded version of the lecture is uploaded in the Department YouTube Channel - https://youtu.be/bf_UQ2vJvPI

INTERNSHIP EXPERIENCE



Ms. Rasme Allat
(IInd Year M. Sc. Geography)

In the modern world, remote sensing and GIS plays a dominant role to continuously monitor earth surface processes. The application of these has made us obtain spatial, aerial and underground data of any area of our planet. Remote Sensing data has provided us with a wide range of information. It was my privilege for getting selected as an intern in one of the prestigious organizations in the field of Earth Sciences, “The Indian National Centre for Ocean Information Services” (INCOIS), Hyderabad. It is an autonomous body established in the year 1999 under the Ministry of Earth Sciences (MoES), Government of India and functioning as unit of the Earth System Science Organization (ESSO), New Delhi.

Due to this COVID-19 pandemic my internship was in online mode and majorly worked on open access data. I worked under the Guidance of Dr. Nimit Kumar, (Project Scientist, Information Services and Ocean Sciences Group), and we used to discuss about the project through online platforms. I was exposed to open source software BRAT 4.2.1.v (Broadview Radar Altimetry View) and QGIS 3.12.3.v (Quantum GIS) for data processing. BRAT software ingests, manipulates, and visualizes the Sentinel-3 Altimetry data products.

BRAT is also able to read most distributed radar altimetry data from ERS-1 and 2 (ESA), TOPEX/POSEIDON (NASA/CNES), GEOSAT Follow-On, JASON-1, ENVISAT (ESA), CRYOSAT (ESA) and JASON-2 missions. Altimetry satellites basically determine the distance from the satellite to a target surface by measuring the satellite-to-surface round-trip time of a radar pulse. However, this is not the only measurement made in the process, and a lot of other information can be extracted from altimetry. QGIS is used to manipulate, analyse, and interpret the satellite remote sensing data products. Quantum GIS functions the users to analyse and edit spatial information, in addition to composing and exporting maps.

This internship gave me an opportunity to learn these software and their potential applications, especially in ocean mapping, bathymetry and altimetry studies, disaster management, resource management, urban planning, and demography related studies.

DEPARTMENTAL ACTIVITIES

GIS DAY CELEBRATIONS

Dr. R. Jegankumar
Associate Professor and Head
Department of Geography, School of Earth Sciences
Bharathidasan University, Tiruchirappalli

will deliver special virtual lecture on
An Overview of Cloud GIS

DATE	TIME	Link
18.11.2020 (Wednesday)	03:00 pm	https://meet.google.com/haq-wvra-ryk

You are cordially invited to attend the special lecture!

GIS DAY 2020

To commemorate the GIS Day 2020 which falls on 18th November 2020, GeoClub of the Department of Geography has organised a special invited online lecture on “An Overview of Cloud GIS” which was delivered by Dr. R. Jegankumar, Associate Professor and Head, Department of Geography, Bharathidasan University, Tiruchirapalli. The lecture covered the contemporary topics in the field of GIS such as big data, deep learning and artificial intelligence to handle spatial data. The session was well received and the audience included M.Sc. students, research scholars and faculty members of the department.

A self-disciplined learner

The year 2020 makes all of us limited to our homes, no heading out. It was like someone hit the pause button in our lives. Every activity comes to a break and it was no different for academics. Being a 2020 pass out Post Graduate, it seems very difficult to go for further studies, but there's always a ray of hope. This hope for me was CUTN. I got admitted as a Ph.D. Scholar in the Department of Geography. But as the pandemic prevails it was not an option to go down to the University. Here, the online platforms bridge the gap and we virtually connected with the campus. Initially, it seemed difficult to gain knowledge over online classes but as time passes it kind of becomes convenient. The faculty members are very interactive and intellectual. Every day I got to learn new things. Although the class discussions are of distant phenomena, I feel that I connected very lively with others. The virtual classes make me a self-disciplined learner.



Ms. Simran Sehrawat
(Ph.D Scholar)



Saumya Chauhan
(Ph.D Scholar)

Online classes: A bane or boon for kids!

Online classes.... It may sound quiet comfortable for college students and for higher classes but for kids? the scenario completely changes. A kid need to be guided about everything and everything cannot be taught by the parents. A kid learns from imitating others but the year 2020 -21 has shut them inside for a long time now. When a kid goes to the school s/he firstly learns to stay away from her/his parents that help them to be independent and have confidence in themselves. The outdoor environment builds a different relation that teaches them the social behaviour and personality development. The online classrooms

have closed all the ways to learn these qualities from others, now it's the sole responsibility of the parents to teach them everything which is quite difficult for parents, because every parent may not have enough time and skills for teaching.

Online classes are not suitable for kids as they are tending to develop unhealthy habits including but not limited to eating, looking or thinking something else. Most importantly, it is making them internet addict as when they get a break they start to play online games which is harmful for their physical and mental health as well. Though this is the need of the hour to fulfil the gap in learning curve, but it will not help the kids towards the personality development.

It's Okay to be Unsure

We never know what we get, but we always think about the future and out of all the choices at present we have never experienced many of them, we tend to make choice which we think is the right path for our future.

And with evolution, our life expectancy has increased and increased assurance of smooth living has led us to run wild with regular and majority professions to lead and eat majority eats, this has made us to think less about surroundings and more about self.

For what we are doing all this? to make better living, no one knows how much is better. Society has set a dimension for what one should choose and do, few say this is a conduct to keep things in order and more over why do we need to live with order when an old Japanese saying, 'Wabi Sabi', says disorder is beauty and that's how nature is.

All this has been shattered by COVID and made a total beautiful chaos out of everything.

(You all know about that and I make an excuse not to speak about all that)

I wish we understand intensity of the things around us and act accordingly and make more of a happy living than a better one.



N. Deepthi
(Ph.D Scholar)

Do you have doubts about life? Are you unsure if it is worth the trouble?

Look at the sky: that is for you.

Look at each person's face as you pass on the street: those faces are for you.

And

the street itself, and the ground under the street, and the ball of fire underneath the ground: all these things are for you.

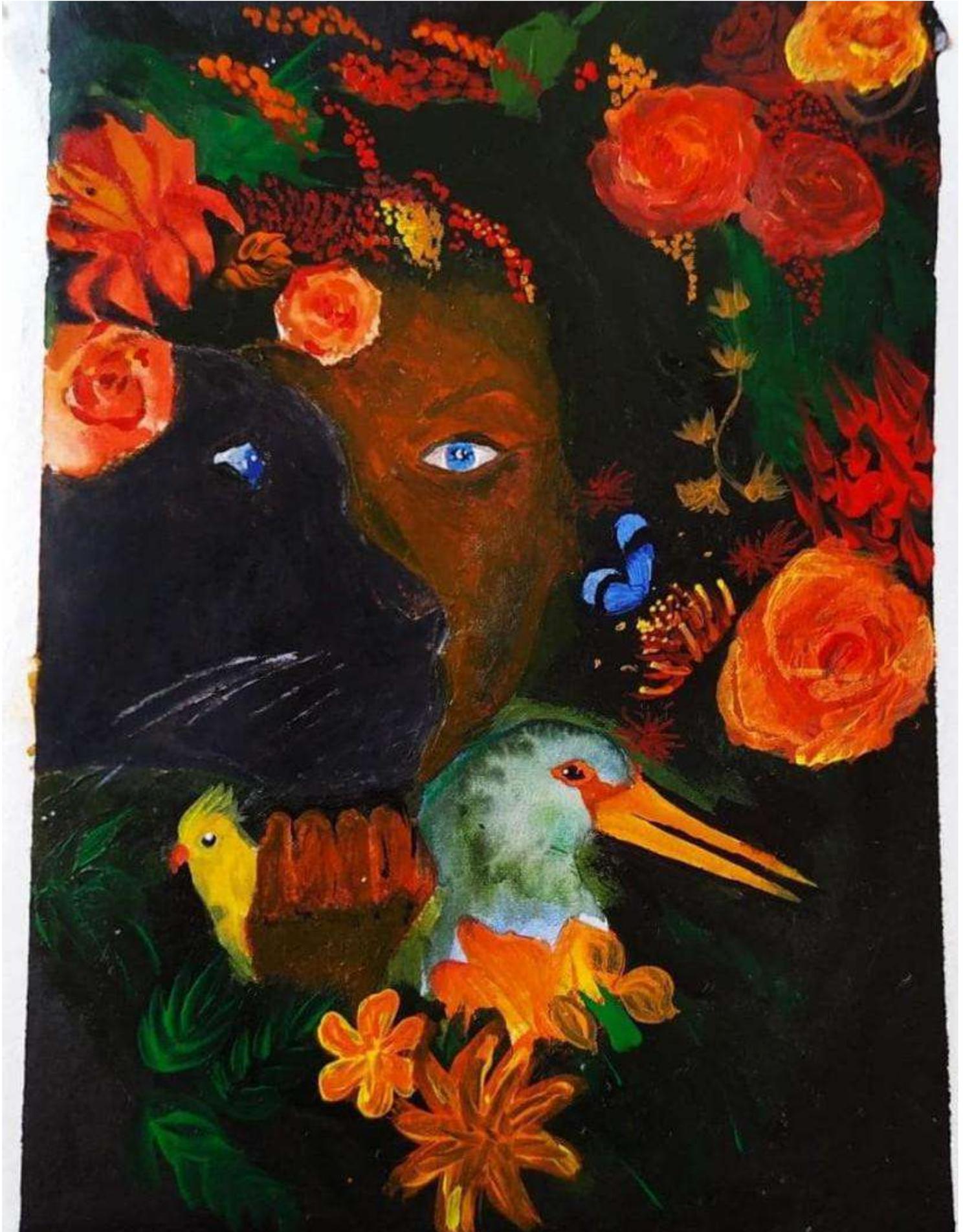
They are as much for you as they are for other people.

Remember this when you wake up in the morning and think you have nothing.

Stand up and face the east. Now praise the sky and praise the light within each person under the sky.

It's okay to be unsure. But praise, praise, praise

- Miranda July



GEO VISTA