





Bangalore University Science Forum Union of Geographic Information Technologists (UGIT) Geography & Geoinformatics

Jointly Organised





"Climate Change and Sustainable Development of Natural Resources- Applications of Geospatial Technologies"
National Science Day
March 15 -16, 2024

Time (ISD)	Programme		
10:00-11:45 H N Auditorium	Inauguration Session - Comparer: Dr. Priya N		
10:00-10:05	Prayer Song Ms. Uma Y. G		
10:05-10:10	Lighting of Lamp All the Dignitaries		
10:10-10:15	Souvenir Release All the Dignitaries		
10:15-10:20	Welcome Address	Prof. Nagaiah N.	
10:20-10:25	Brief introduction of the event	Prof. Ashok D. Hanjagi	
10:25-10:45	Keynote Address	Prof. Gopalan Jagadeesh	
10:45-11:05	Keynote Address Dr. Prakash Chauhan		
	UGIT's Excellency Award Ceremony <u>Dr. Nishcita</u>		
	Awardees		
11:05-11:20	Dr. Prakash Chauhan, Director, NRSC		
11:05-11:20	Dr. Ravindra G. Jaybhaye, Professor, University of Pune	By All Guests	
	Dr. Anjana Vyas, Professor, CEPT University		
11:20-11:30	Presidential Address	Prof. Dr. Jayakara S M	
11:30-11:35	Vote of Thanks Shri Sheik Latheef		
11:35 onwards	Guests visit: Science exhibitions, models, posters, museums etc.,		

LUNCH

Seminar Hall Plenary Sessions		
14:00-15:00	Plenary Session – I	
14.00-14:05	Chair: Dr. Ravindra G. Jaybhaye	
14:05-14:25	Dr. Ram Prasath Manohar, IAS, Chairman, BWSSB	
14:25-14:45	Shri. T. Ramesh, Chief General Manager, NABARD	
14:45-14:50	Session in-charge & Vote of Thanks by: <u>Ms. Suzan Karmoka</u> .	

BREAK

15:00-16:00	Plenary Session – II		
15:00-15:05	Chair: A. S. Rayamane		
15:05-15:25	Dr. Hebbar, General Manager, RRSC, ISRO, Bangalore		
15:25-15:45	Dr. K V Ramesh, Chief Scientist, CSIR NIIST, Thiruvananthapuram		
15:45-15:50	Session in-charge & Vote of Thanks by: <u>Ms. Prarkuti Pilania</u>		

16:00-16:45	Plenary Session – III	
16:00-16:05	Chair: Prof. P.P. Nageshwar Rao	
16:05-16:25	Dr. Shahnawaz, Salzburg University, Austria	
16:25-16:45	Dr. Ramamurthi, Principal Scientist, NBSS LUP, Bangalore	
	Session in-charge & Vote of Thanks by: <u>Ms. Shilpa D.P</u>	

16:50-17:45	Young Technologist Award Session		
	Prof. Chandrashekhara B, Chairman		
Juries	Prof. Vijayakumar Doddamani, Member		
	Prof. R. Jegankumar, Member		
	Session in-charge: <u>Dr. Surendra P & Dr. Abdul Rahaman S.</u>		
17:45-18:15	UGIT General Body Meeting (ISRO Lab)		
18:30-19:30	Cultural Programme (HN Auditorium)		

Time (ISD)	Programme	
10:00-11:00	Plenary Session – IV	
10:00-10:05	Chair: Dr. J. Krishnamurthy	
10:05-10:20	Shri. Girish H C, IFS, Commissioner, Watershed Development Department	
10:20-10:35	Dr. Stephen McCracken, Director, DRSCW, USA	
10:35-10:50	Dr. Ganesh Raj, Former Scientist, ISRO, Bangalore	
11.00-11.05	Session in-charge & Vote of Thanks by: <u>Ms. Aparna.</u>	

BREAK

11.15-13.00		Technical Sessions (TS)		
Rooms	TS	Chair by	Rapporteurs	Theme
Lecture Hall -1	TS - I	Prof. Arun Das	Dr. Jagadeesha N	Water Resource Management Watershed Analysis
Seminar Hall	TS – II	Dr. Ganesh Raj	Dr. Nagabhushana	Climate-Smart Agriculture and Food Security
Carto Lab	TS – III	Dr. K.L. Prakash	Dr. Arularasi	Sustainable Management of Forest Resources & Environmental Sustainability
Lecture Hall -2	TS – IV	Dr. Veeramma Basayya Saviramath	Dr. Amol Pandurang Jarag	Soil Conservation and Land Management
GIS-Lab	TS – V	Prof. Malarkodi	Dr. Nischitha V.	Mining, Quarrying, and Renewable Energies
RS-Lab	TS - VI	Prof. N Chendrayudu	Dr. Shiva Kumar R.	Sustainable Urban and Rural Development
Geology Hall	TS - VII	Prof. Dasarath Angadi	Dr. Surendra P.	Population Dynamics and Resource Management
Lecture Hall -3	TS - VIII	Prof. Chandrashekhara B	Dr. Vishwanath B.C	Building Resilient Societies and Communities
Lecture Hall -4	TS - IX	Prof. R. Jegankumar	Dr. Sushant Sawant	Advanced Applications in Remote Sensing, GIS, and Geo-Surveying
ISRO-Lab	TS - X	Prof. Emayavaramban V	Dr. Abdul Rahaman S.	Virtual Presentation

LUNCH

	Panel Session		
	Chairman: Prof. P.P. Nageshwar Rao		
	Members		
	Dr. J. Krishnamurthy, ISRO Scientist (Rtd)		
	Dr. Bandyopadhaya., ISRO, West Bengal		
14.00-16.15	Dr. Malarkodi, Professor, Dept of Geology, BU		
ΗN	Dr. Ashok Hanjagi, Convener & Chairman		
Auditorium	Dr. Priya N, NAAC, Bengaluru		
	Dr. Kamsali Nagaraja, Professor Dept. of Physics, BU		
Dr. Inayathulla M, Professor, Dept. of Civil Engineering, UVCE, BU			
	Mr. Venkat Raju, Head Water Resources– NRSC, Hyderabad		
Dr. V. Rakesh, Senior Principal Scientist, CSIR-4Pi, Bengaluru			
Rapporteurs			
	Dr. Vahini Assoc. Professor, Dept of Electronic Media, BU		
	Session in-charge: Mr. Ravikiran T.		

	Valedictory Session		
16.20-17.00	Comparer:	Prof. G. Krishnamurthy	
	Welcome Address	Prof. Hanumanthappa	
	Guest of Honor	Prof. Dr. Jayakara S M. Vice Chancellor, BU	
		Smt. Nirmala Yaligar, Assistant Director, Doordarshan	
		Shri Sheik Latheef, K.A.S, Registrar, BU	
		Dr. Srinivas C. Registrar (Evaluation), BU	
		Dr. Sunitha M. Finance Officer, BUB	
	Brief Report of the event	Prof. Ashok D. Hanjagi, Dean, Faculty of Science, BU	
	Secretary, BUSF	Prof. Nagaiah N. Senior Professor, Dept. of Physics, BU	
	Announcement of Prizes	Dr. Priya N. Assistant Adviser, NAAC	
	Vote of thanks	Dr. Srinivas C. Registrar Evaluation, BU	
	Session in-charge: Ms. Sruthy Vijay		

Union of Geographic Information Technologists (UGIT's) **Department of Geography & Geoinformatics** Bangalore University Science Forum Jointly Organized

UGIT's 12th International Conference











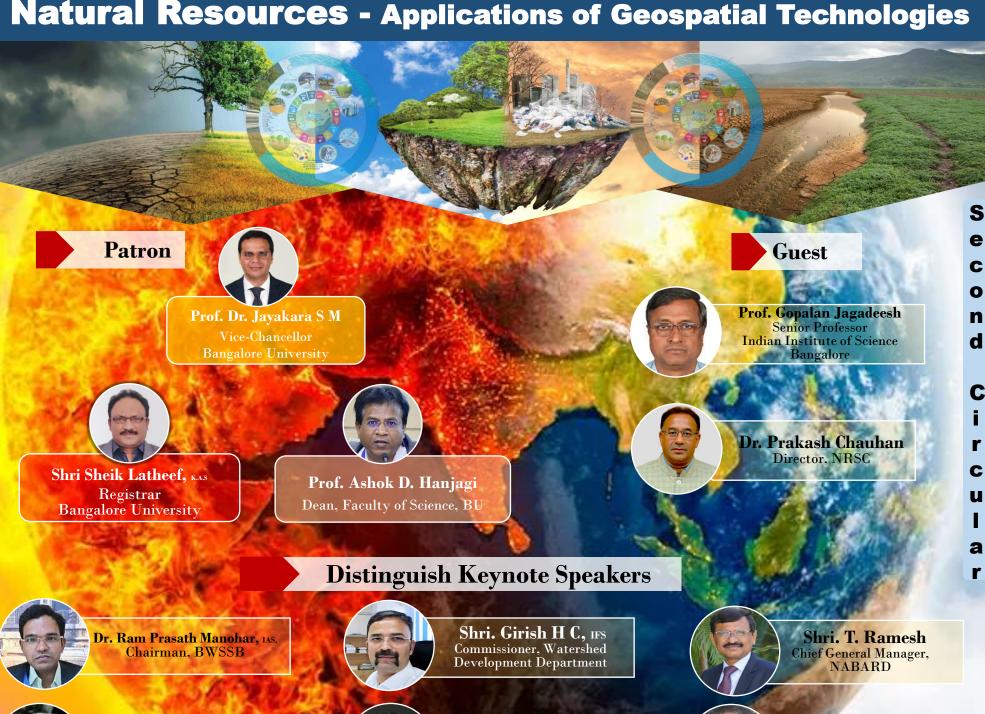








Climate Change and Sustainable Development of Natural Resources - Applications of Geospatial Technologies







Dr. Stephen McCracken Director, DRG, USA



Dr. Marcello Pibiri Research Engineer, University of Illinois



Dr. Shahnawaz Professor, Salzburg University, Austria



Dr. Hebbar R General Manager, RRSC



Dr. K V Ramesh cientist, CSIR-NIITST



Dr. Ganesh Raj Former Scientist, ISRO



Dr. V. Ramamurthy rincipal Scientist & Head, NBSS LUP



Date: 15th & 16th March, 2024



About the Conference

Climate change refers to long-term changes in the average weather patterns that have been observed over an extended period. It involves alterations in temperature, precipitation, and other atmospheric conditions on Earth. Climate change can manifest at various scales, from local and regional to global, and it encompasses both natural processes and human activities. Natural resources refer to the raw materials and components that are found in the environment and are utilized by living organisms for various purposes. These resources are essential for the sustenance of life and for the functioning of ecosystems. Geospatial technologies involve the use of tools and techniques for collecting, analyzing, interpreting, and visualizing spatial data. These technologies leverage geographic information systems (GIS), remote sensing, global positioning systems (GPS), and other related tools. The applications of geospatial technologies are diverse and impact climate change and natural resources fields. The conference appears to be a response to the urgency outlined in the IPCC report, bringing together experts, researchers, and professionals to discuss and strategize on how to enhance climate resilience and promote sustainable development. The location in Bengaluru, Karnataka, suggests a regional focus with potential implications for broader applications. The conference is poised to be a platform for sharing knowledge, fostering collaboration, and formulating strategies for addressing the challenges posed by climate change. Participants can expect discussions on the latest research findings, the formulation of action plans, and the exploration of solutions that contribute to a sustainable and resilient future. Considering this, a two-day international level conference on "Climate Change and Sustainable Development of Natural Resources Applications of Geospatial Technologies" is scheduled during 15 – 16 March 2024 at Bangalore University, Jnanabharathi Campus, Bengaluru, Karnataka, India.

Objectives of the Conference

This international conference aims to:

- Analyse the impacts of climate change on various natural resources.
- 2. Highlight the role of geospatial technologies in sustainable natural resource development.
- Facilitate a platform for knowledge exchange among experts, researchers, and practitioners.
- Promote the integration of geospatial technologies in policymaking and strategic planning for climate resilience.

Sub Themes

- 1. Water Resource Management and Watershed Analysis
- 2. Climate-Smart Agriculture and Food Security
- 3. Sustainable Management of Forest Resources
- 4. Environmental Sustainability
- 5. Soil Conservation and Land Management
- 6. Mining, Quarrying, and Renewable Energies
- 9. Sustainable Urban and Rural Development
- 10. Population Dynamics and Resource Management
- 11. Building Resilient Societies and Communities12. Advanced Applications in Remote Sensing, GIS, and Geo-Surveying

Expected Outcomes of the Conference

The conference is expected to result in a comprehensive understanding of the challenges and opportunities in using geospatial technologies for sustainable natural resource development in the context of climate change. It aims to establish a collaborative network of professionals and foster innovative solutions, with the ultimate goal of contributing to global sustainability and resilience.

Inaugural Session: Renowned scientists and eminent personalities will be delivering key-note address on the focal theme and sub-themes on the conference.

Plenary Session: Distinguished speakers from various fields will be invited to deliver lead lectures on the focal theme and sub-themes of the conference to broaden the horizon of delegates knowledge. To help the budding postgraduate students and research scholars, lead lectures /invited talks are arranged This helps researchers and students to capture the knowledge in Geoinformatics (Remote Sensing, GNSS & Geographic Information System) and use the same in their respective disciplines. This also helps them to get placements in MNCs.

Technical Session: Each technical session will be chaired by eminent scientist and theme-wise technical sessions will be arranged to help large number of delegates on the focal theme and sub-themes of the conference.

Panel Discussion: The panel session of the conference will be conducted at the end of the conference. The panel session of the conference will be useful to trigger an exchange of viewpoints among experts, either with prepared statements or in response to the questions from the public audience.

Call for Papers

Along with the abstract the full-length of original research paper / posters should be submitted only by online mode on the focal theme and sub-themes of the conference (Submit through online registration) within the dead line. Selected research papers will be published in the UGIT's International Journals* - "Geographical Analysis" & "Geo-eye". Further details visit websites of www.bangaloreuniversity.karnataka.gov.in & www.ugit.net Abstract without registration fees will not be printed in the abstract volume. Expert committees are involved for screening of abstracts as well as to classify them into main theme and subthemes. Further, it is suggested that the first author should invariably be a student (UG, PG or Ph.D.) or a young researcher. Selected abstracts with full-length research papers / posters will be invited to present in the conference during 15 – 16 March 2024.

Submission link: Upload your abstract in the registration form itself.

UGIT'S Young Technologist Award

Research articles along with abstracts are invited from young researchers who are below the age of 30. All the research papers which are submitted under this category should be focused on conference theme and sub-themes. Papers on these categories have to be in the original format and not published anywhere earlier. The best presentation will be selected for the **cash prize of Rs. 10,000**, would be given along with certificates. The selection would entirely based on relevance of the research topic, methodology & techniques used for analysis, output of the research and the quality of the work presentation.

UGIT'S Excellency Award

UGIT's Excellency Award is a form of honour, a kind of recognition aimed to felicitate one's excellent contribution in a chosen field. An award is not only a great prestige or a mark of excellence, but also is tremendous boost for personalities who strives and excel higher and aim for even bigger accomplishments in life. It is the ultimate token of recognition of purest of talents and highest of achievements. With an objective to encourage and inspire the teaching and research community UGIT is giving Excellency Awards since 2015. The executive body selects the contributors to felicitate them on UGIT's 12th International Conference. The Awardees name and achievements would appear in UGIT's Journal of Geographical Analysis. On the day of inaugural session of the International Conference, UGIT would like to recognize and honor researchers, Geographers, technologists and academicians from geo-spatial community, who have best record in their respective areas and who have promoted geospatial technologies by applying in different fields will be felicitated in the inaugural function of International Conference. Three candidates will be selected across India and World.



Science Day Competitions

Science Model Exhibition, Pick & Speak, Essay Writing, Poster presentation & Quiz: The Post Graduate / Research Students up to 30 years of age can be participate in this event.

Who are the Participants?

Conference participants include teaching faculty, scientists, climatologists, policy makers, research scholars and post graduate students of various universities, officers of government line departments, scientists from research institutes as well as science writers and interested general public.

About Bangalore University

Bangalore University is one of the largest Universities in India which is located in the South - Western part of Bengaluru city, adjacent to Mysore Road and is roughly 10 km from Railway-station / Kempe Gowda Bus Station (KBS) and around 40 km from Bengaluru International Airport. The university has been awarded with A++ (3.75 / 4) grading by NAAC and also been awarded with Category – I university by UGC in 2023. The Week - Hansa – best university Survey 2016 of Indian Universities has ranked Bangalore University at 15th position at the National level and state level it is number one position amongst the surveyed Universities. The QS – University ranking BRIC – An International Agency has ranked Bangalore University at 151st position amongst the BRICS nations (Brazil, Russia, India and China).

Accommodation: Registered and confirmed participants will be provided accommodation within Bangalore University campus and nearby places. Accommodation information with details will be sent through e-mail communication. Accommodation facility would be extended during conference dates only. Any accompanied persons need to pay extra charges. Delegates wish to stay extra days have to pay on their own.

Organising Committee

Dr. Shiva Kumar R. Mr. Hemanth Reddy Dr. Harish .H.S Ms. Kavitha M. Ms. Kuku C.J. Ms. Suzan Karmoka Mr. Basavaraj Mr. Ranganath Naika

Mr. Loknath

Dr. Nischitha V.
Dr. Shahnin Irfan
Mr. Veerednra Patil
Dr. Rashmi Prasad
Dr. Mukkappa Rathod
Mr. Ravikiran T.
Mr. Anilkumar V.
Mr.Srinivasa H.C.

Dr. Abdul Rahaman S Mr. Venugopal T.V. Mr. Shashank B Patel Dr. Prathap V. Ms. Lakshmi Patel Ms. Aparna Mr. Ramesh P.D.

Ms. Prarkuti Pilania

Dr. Nagabhushana Dr. Divya S. Ms. Sruthy Vijay Ms. Savitha H Dr. Gizachev Tiruniei Mr. Sharath H.M. Mr. Jagadeesh N. Ms. Shilpa D.P.

Panellists

Dr. J. Krishnamurthy, ISRO Scientist (Rtd)

Dr. Bandyopadhaya, ISRO, Bengaluru

Dr. Malarkodi, Professor, Dept. of Geology, BU

Prof. Ashok Hanjagi, Convener & Chairman, Dept. of Geography, BU

Dr. Priya N, NAAC, Bengaluru

Prof. Kamsali Nagaraj, Professor Dept. of Physics, BU

Dr. Inayathulla M, Professor, Dept. of Civil Engineering, UVCE, BU

Mr. Venkataraju B G - Engineer – ISRO, Bengaluru Dr. Rajeev Jaiswal, Scientist at ISRO, Bengaluru

Dr. Vahini, Assoc. Professor, Dept of Electronic Media, Rapporteur

Advisory Committee

Dr. Nagaiah N. Senior Professor, Dept. of Physics, BU

Dr. Vijaykumar Doddamani, Senior Professor, Dept. of Physics, BU

Dr. Srinivas C. Senior Professor, Dept. of Microbiology, BU

Dr. Rajanna L. Senior Professor, Dept. of Botany, BU

Dr. A.R. Ushadevi, Senior Professor, Dept. of Physics, BU **Dr. C.S. Karigar,** Senior Professor, Dept. of Biochemistry, BU

Dr. M.K. Kokila, Senior Professor, Dept. of Physics, BU

Dr. J.T. Devaraju, Senior Professor, Dept. of Electronic Science, BU

Dr. Ramesha, Senior Professor, Dept. of Library Science, BU

Dr. Parameshwar Pandit, Senior Professor, Dept of Statistics, BU **Dr. B.L. Muralidhara**, Senior Professor, Dept. of Compu. Sci., BU

Dr. M. Hanumanthappa, Senior Professor, Dept of Comp. Scie, BU

Dr. Ramesh, CEO, KSTA, Bengaluru

Dr. U.T. Vijay, Executive Secretary, KSCST, Bengaluru

Important Dates

Abstract Submission: 28 Feb 2024 (Extended:10/03/24)

Full paper Submission: 10 March 2024

Registration Fee

Indian Delegates

Faculty : ₹ 2000 Researcher : ₹ 750 Students : ₹ 200

Delegates (UGIT Members)

Faculty : ₹ 1500 Researcher : ₹ 500 Foreign Delegates

Faculty: \$50 Researcher: \$25

Spot Registration: ₹ 2500

Account Details

Account No : 64042062621

Bank Name : State Bank of India

<u>Branch</u>: Nagarabhavi (Bangalore University Campus)

IFSC : SBIN0040211 SWIFT Code : SBININBB240

Mode of Presentation: In-person and Virtual

Note: A compendium of selected abstracts of research papers and posters will be compiled and published as a souvenir of the conference. Authors are required to submit a self-certification or declaration confirming that their submitted abstract or poster has not been published elsewhere. Additionally, authors must specify the theme or subtheme under which they wish to submit their research paper or poster. Delegates participating in the conference are responsible for arranging their own transportation to Bangalore University. Local transport options such as buses, taxis, Ola & Uber cabs, and autos are available from the Airport, Railway Station, and Bus Station to the University Campus.

Important Links:

Weblink : https://ugit.net/

Registration : https://forms.gle/JQcCAJiLnS44WASr9

Email : secretary@ugit.net

Organisers

Prof. Ashok D. Hanjagi Convener & Chairman, Dept of Geography President UGIT, BU

Dr. Priya Narayanan Asst. Adviser, NAAC, BLR Secretary UGIT Dr. Surendra P. Assistant Professor, Treasure UGIT, BU.



National Science Day

Bangalore University Science Forum (BUSF)

Science Exhibitions and Competitions

Date: March 15 & 16, 2024 Venue: Science Block Corridor, BU



Theme: Science for a Sustainable Future



Competitions:

Exhibitions of Science Models



- **Poster Presentation**
- **Essay Writing**
 - **Pick and Speak**

Poster: Students are informed to prepare the poster on the themes and sub themes of the conference (link) or Science for a Sustainable Future according to their subject domain. Students should represent the posters based on the instructions given (6*3 size with visible font size) and send it by email: geography@bub ernet in it by email: geography@bub.ernet.in

Quiz: There are 50 MCQs, each questions carries 1 mark. Time: 50 minutes.
The guidelines will be given by instructor.

Exhibition: Various scientific models need to be exhibited in the space given to the participant.

A Broad Topics for

Essay Writing: The scientific contributions by Indian legendary scientists.

Pick & Speak: Indian contemporary scientific issues and

Science Exhibitions

Age limit for the competitions: Up to 30 years

D



Stalls: Bamboo handicrafts, jute products, embroidery, earthen pottery, leather products, organic agricultural products and fruits etc.

Note: To encourage and promote excellence in scientific research, the Science Forum of Bangalore University will award first, second, and third prizes in various categories including poster presentation, essay writing, pick & speak, quiz, and science model exhibition. The awards include a memento and a certificate along with cash prizes. Every participant will get conference kit (Souvenir, notepad, pen, and a certificate) along with two days lunch and tea coupons.

Registration Fee & Guidelines:

Students admission to the event: ₹ 200

 In addition to registration fee of Rs. 200, students have to pay Rs. 100 for each competition separately.

Registration Link

: https://forms.gle/aY5W1R1Sv54iGHpn9

Who can Participate?: PG Students of Science, Engineering,

Prizes:

1st Prize: Rs. 10,000

2nd Prize: Rs. 7,500

3rd Prize: Rs. 5,000

National Science Day Committee

Science Models

Dr. K.J. Thara Saraswathi, Professor, Dept. of Microbio., BU Dr. D. Usha Anandhi, Professor, Dept. of Zoology, BU Dr. Shivaraj Y. Professor, Dept. of Chemistry, BU

Social Science and Research Scholars.

Dr. B.N. Meera, Professor, Dept. of Physics, BU

Dr. G. Krishnamurthy, Professor, Dept. of Chemistry, BU Dr. Basavarj Angadi, Professor, Dept. of Physics, BU

Dr. Kamsali Nagaraja, Professor, Dept. of Physics, BU

Dr. Mahaboob Basha, Professor, Dept. of Zoology, BU

Dr. Sowbhagya, Asso. Professor, Dept. of Chemistry, BU Dr. H.G. Nagaraja, Professor, Dept. of Mathematics, BU

Dr. B. Eraiah, Professor, Dept. of Physics, BU Dr. S. Abdul Rahaman, Dept. of Geography, BU Dr. T.G. Umesh, Professor, Dept. of Botany, BU Dr. Renuka C.G, Professor, Dept. of Physics, BU

Dr. S.T. Girisha, Professor, Dept. of Microbiology, BU

Dr. Prakash K.L., Professor, Dept. of Env. Science, BU Dr. Priya N., Dept. of Geography, BU

Pick & Speak

Dr. Mahesh H.M., Professor, Dept. of Electronic Science, BU Dr. T. Ravikiran., Professor, Dept. of Microbiology, BU

Dr. M. Srinivas., Professor, Dept. of Psychology, BU Dr. M. Shivshankar., Professor, Dept. of Life Science, BU

Dr. R. Shivakumar, Dept. of Geography, BU

Dr. Malarkodi, Professor, Dept. of Geology, BU Dr. Manjesh, Professor, Dept. of Electronic Science, BU

Dr. T. Sripathy, Asso. Professor, Dept. of Electronic Media, BU

Dr. Harina Wagamore, Professor, Dept. of Mathematics, BU

Dr. H. Manjunatha, Professor, Dept. of Biochemistry, BU

Exhibition

Dr. B.P. Harini, Professor, Dept. of Zoology, BU

Dr. B.C. Nagaraja, Professor, Dept. of Env. Science, BU Dr. Nagesh, Professor, Dept. of Geology, BU

Dr. Sudhakar, Assoc. Professor, Dept. of Geology, BU

Further Contacts:

Prof. Ashok D. Hanjagi, Dean faculty of Science, BU, Mobile: 9845634196, Email: ashokhanjagi@bub.ernet.in