

## RESUME - in brief



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### PROFILE [ Nearly 37 Years ]

	1970	1980	1990	2000	2005	2013	2014
<b>Asst. Geologist</b>			(1978 – 83)	Geological Survey of India			
<b>Junior Geologist</b>	Geological Survey of India			(1983 – 95)			
<b>Scientist</b>	Centre for Remote Sensing, BARD				(1995 – 98)		
<b>Junior Geologist</b>	Geological Survey of India					(1999)	
<b>Lecturer</b>	Centre for Remote Sensing, BARD			(2000 – 2008)			
<b>Reader &amp; Head</b>	Centre for Remote Sensing, BARD			(2008 – 2010)			
<b>Professor &amp; Head</b>	Centre for Remote Sensing, BARD				(2011 – 2014)		
<b>Emeritus Professor</b>	Centre for Remote Sensing, BARD					(Since July 2014)	

*BARD : Bharathidasan University*

### SPECIALISATIONS

#### Earth System Sciences using Remote Sensing and GIS for

- ⇒ Structure, Tectonics & Mineral Mapping
- ⇒ Water Resources Exploration
- ⇒ Geomorphology & Seismotectonics
- ⇒ Decision Support System.

### ACTIVITIES / ACHIEVEMENTS:

- ⇒ Carried out intensive systematic geological mapping in parts of Arunachal Pradesh, Southern Rajasthan, Karnataka and brought conceptual models for base metal and gold mineralization
- ⇒ Programmed, organized and conducted various training programmes at Geological Survey of India Training Institute.

- ⇒ Faculty member in Six Year Integrated M.Tech. in Geotechnology & Geoinformatics, M.Tech Geological Remote Sensing and Geoinformatics and M.Sc Geoinformatics academic programme
- ⇒ Carried out / carrying out applied Remote Sensing and GIS research project individually as well as jointly with others on
  - Mineral and Hydrocarbon Exploration
  - Structure and Tectonics
  - Neo tectonics
  - Landslides and other Geohazards
  - Water Resources etc.
- ⇒ Organized and involved in organizing number of National Seminars, Workshops and Training Programmes at Bharathidasan University, Tiruchirappalli, Tamil Nadu.

❖ **Research and Development :**

- Conceived and executed over [20 Sponsored Research Projects](#) National / International and carrying out 4 R&D Projects

❖ **Research Publications :**

-  [3 Books](#) and Edited Volumes
-  [60 Scientific Papers](#) in Referred Journals.

**Awards and Recognition:**

- Member in Environmental Geomorphology Working Group of South Asia (**GEOSAS**)
- Member in International Geological Correlation Programme (**IGCP-464**)
- Member in International Geological Correlation Programme (**IGCP-490**)
- Core Faculty in Department of Science and Technology for the SERC Training Programme, organized / being organized by Geological Survey of India, at Chitradurga, Karnataka.
- Member in the Board of Studies in Geology in Bharathidasan University.
- Member in the Board of Studies in Remote Sensing in Bharathidasan University.

**Membership in Professional bodies:**

- Geological Society of India, Bangalore - (**F-747**)
- Indian Society of Remote Sensing, Dehradun - (**L-1461**)
- Institute of Geoscientists, Kolkatta - (**AMIG-164**)
- The Gondwana Geological Society, Nagpur - (**319**)
- Indian Society of Geomatics - (**L-543**)
- Mineralogical Society of India - (**L-275**)

## **ACCOMPLISHMENTS**

Sl.No.	Items	Details
<b>(i) Academic Contribution:</b>		
1	Experience as on 31.12.13	<b>36 Years and 10 Months</b>
2	Academic Contribution	(i) Coordinating <b>3 Academic courses</b>
<b>(ii) Research Contribution:</b>		
3	Research Projects  Completed  Ongoing	<b>20 Projects – 900.52 lakhs</b> <b>4 Projects – 173.32 lakhs</b>
4	Research Guidance	<b>3 Nos. - Ph.D (Awarded)</b> <b>4 Nos. - Ph.D (ongoing)</b> <b>36 Nos. – M.Phil / M.Tech</b> <b>8 Nos. - M.Sc</b>
5	Conference/Seminar/ Attended  Workshop	<b>50 Nos.</b> i. International - <b>15 Nos.</b> ii. National - <b>31 Nos.</b> iii. Attended only - <b>4 Nos.</b> Invited talks - <b>27 Nos.</b> in seminars
6	Books (Published)	<b>3 Nos.</b>
7	Papers (Published)	<b>60 Nos.</b>
<b>(iii) Extension Academia:</b>		
8	Conferences / Seminars / Workshops Organized	<b>21 Nos.</b>
9	Training Programme Organized	<b>26 Nos.</b>
<b>(iv) Trainings Undergone:</b>		
10	In Geological Survey of India	<b>2 Nos.</b>
11	In Bharathidasan University	<b>3 Nos. + 1No.</b>

## **In Geological Survey of India:**

Carried out intensive systematic geological mapping on various scales viz., 1:50,000, 1:25,000 and 1:1,000, in parts of Daling group of rocks in Arunachal Pradesh, Delhi Metamorphites of Southern Rajasthan and in various schist belts belonging to both Sargur and Dharwar Supergroups of Precambrian Supracrustals, the eastern greenstone belt and Peninsular Gneissic country of Karnataka. Through these studies the significant achievements are made.

1. Detailed geological and structural maps were prepared elucidating basemetal metallogenic province of parts of Subansiri and Siang districts, Arunachal Pradesh, Sirohi district Rajasthan (Ambaji - Deri basemetal extension belt). **A new gold deposit in the Danva area, Sirohi district, Rajasthan has been reported.**
2. Similar studies has lead to the identification of **new gold deposit north of Wandali block in the Hutti schist belt, Karnataka.**
3. A comprehensive geological map and litho stratigraphy has been brought for the Hutti schist belt.
4. Problems related to Sargur and Dharwar rocks controversies in number of schist belts in southern Karnataka have been clarified with very good field evidences.

On the basis of these findings and conceptual models, exploratory programmes have been formulated and initiated.

In recognition of my systematic mapping and exploration experience I was taken as faculty in the GSI training Institute. As a faculty member of the Training Institute, various training programmes have been planned/programmed, organized and conducted successfully. In recognition of this service I was invited as core faculty for the DST., SERC training programme on "STRUCTURAL MAPPING" at Chitradurga training Institute during 2001, after I joined Bharathidasan University.

## **In Bharathidasan University**

### **ACADEMIC CONTRIBUTIONS:**

#### 1) **Coordinator of Academic Programmes:**

##### **Ongoing courses:**

- i) **M.Tech** – Geological Remote sensing and Geoinformatics
- ii) **M.Sc.** --- Geoinformatics

As coordinator I was associated in syllabus updation, curriculum designing, conducting courses, conducting the University Examinations (setting up of QP through external examiners, conducting of examinations, two evaluation, passing board and result announcement etc)

As faculty member handled Classes, Conducted weekly tests, Seminars, Group discussions etc.

##### **New course:**

As Head of the Department and coordinator for the newly launched **6 Year Integrated M.Tech** – Geotechnology and Geoinformatics, designed the course curriculum, syllabus for the entire 6 years and conducting the course.

Also designed a 4year BS in earth Sciences course curriculum, and syllabus.

#### **2. Administrative Responsibilities in the Centre for Remote Sensing**

- Took full responsibility in developing the Centre for Remote Sensing in every front which in turn brought name to University.
- Acted as Reader & Head from 1.5.2009 till Feb2011
- As Professor and Head, the Centre for Remote Sensing from February 2011 to June 2014

### **3. Research & Development Activities :**

Carried out number of R & D projects individually as well as jointly, through the analysis of black & white aerial photographs, satellite imageries, false colour composites, ground and airborne geophysical data, extensive field data, various collateral data etc., and by integration of these various data sets. The following are some new genetic models attempted.

- Digital image Processing of satellite data for rock type mapping
- Optimization of Hyper-spectral data for mineral mapping
- Ever conceived Integrated Geophysical, Geochemical, Remote Sensing and GIS based model for Hydrocarbon targeting
- GIS based 3D visualization of surface and sub-surface folds and geological structures using SRTM / geophysical data
- New techniques of Mapping Active faults from SRTM and DEM wrapped Satellite FCC data sets.
- Geomatics modeling of the deforming Indian plate and its impacts over natural resources, natural disasters and ecosystems
- Seismically active corridors through the analysis of various anomaly maps, 3D analysis of geophysical data, sub surface geology data and groundwater data and correlating them with historic seismic data.
- Last 7000 years of Land – Ocean interactive history of Tamilnadu coast
- Through the analysis of SRTM data Sea Level Raise impact analysis along Tamilnadu Coast.
- Scintillating model on the interface dynamics between tsunami and onshore & offshore geo-systems and the related mitigation models
- Integrated water resources management models - runoff, inter watershed transfer, aquifer function models, artificial recharge; inter linking of rivers, etc.
- Concepts of land-water interface dynamic modeling for flood hazard zonation mapping and mitigation
- Model on landslide hazard zonation mapping using geomatics technology
- Ever conceived spatial decision support system
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#### **4. University Administrative and Research assignments:**

- ❖ Personnel and Technical Officer to Vice- Chancellor
- ❖ Director, University Khajamalai Campus
- ❖ Nodal Officer to all the Bharathidasan University Constituent colleges
- ❖ Nodal Officer University Model Colleges to co-ordinate with state Govt. and UGC
- ❖ Nodal Officer for the CM's Special Cell Petitions
- ❖ Expert Committee Member in the University UGC –XI plan Unassigned grant
- ❖ Member in the scrutinizing committee of University Departments teaching work load
- ❖ Member in the NAAC Coordination Committee
- ❖ Member in the IQAC
- ❖ Member in the NAAC peer team visit Coordination Committee.
- ❖ Member in the University Re- Autonomous College Review Committee
- ❖ Member in the University DST-Purse scheme Coordination Committee.
- ❖ Coordinator for the UGC-JRF examinations ( Dec2011, June & Dec 2012 exams)
- ❖ Coordinator for SET examinations-October, 2012.
- ❖ Coordinator UGC refresher course on “Environmental Studies”
- ❖ University Observer for the University Distance Education B.Ed. Examination
- ❖ Member in various Affiliated College Committee
- ❖ Member in various Affiliated College Academic Council

## **Professional Ambitions**

### **Academic**

Taking into consideration the various Geo-systems related challenges such as, its resource potentials scarcity, ecosystem understanding and disaster mitigation and management, confronting the Indian subcontinent as well as world; the tremendous requirement of manpower to provide solutions and to create disaster free and sustainable India we can launch post PG level diploma courses exclusively for the earth scientists on

- PG Diploma in Mineral and Hydrocarbon exploration
- PG Diploma in Water resources and Management
- PG Diploma in Disaster Management
- PG Diploma in Geomatics

### **Research:**

Duly capitalizing the field experience in GSI, the teaching and research experience in Bharathidasan University, the research horizon would be expanded in the areas of Geomatics and Geological Sciences viz;

1. Hyper-spectral Remote Sensing for Mineral and Petroleum Exploration
2. Geomatic modeling of Earth System Dynamics and the related Natural Resources and Environment and Natural Disasters
3. GIS based 3D Modeling of Mineral and Petroliferous deposits
4. GIS based 3D Modeling of Aquifer Systems
5. Geomatic modeling of Earth system dynamics visa vis climate change
6. Geomatics in Hill Ecosystem modeling
7. Remote Sensing and GIS in Coastal area and Marine studies
8. Geomatics in Mining and Engineering geology
9. Geomatics in Disaster Management.
10. Spatial Decision Support Systems in Mineral, Hydrocarbon & Water Resources
11. Spatial Decision Support Systems on Geo-system based developmental planning

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