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- **DATE OF BIRTH: 22-07-1961**-(Twenty second-July-Nineteen Sixty one)
- **MARITAL STATUS: MARRIED**

#### **Area of Specialization:**

**: Precambrian Geology, Field Geology, Petrology, Geochemistry, Structural Geology, Fluid inclusions, Geomorphology, Photogrammetric, Geotectonics, Neotectonics, Geodynamics, Remote Sensing and GIS Applications to Earth Science & Environmental Science.**

**EDUCATIONAL QUALIFICATION:**

(Indicate your educational qualifications, starting with latest)

Period	Qualification	University / Institute/ Board	Subject / field
1987 to 1994	<b>Ph.D</b>	University of Mysore Department of Geology Manasagangotri, Mysore	Subject: Geology Field: Petrology, Geochemistry , Structural geology, Fluid Inclusions on Biligirirangan Hills , Karnataka,
1984 to 1986	M.Sc.	University of Mysore Department of Geology Manasagangotri, Mysore	GEOLOGY
1981 to 1984	<b>B.Sc.</b>	University of Mysore Government Science College Chitradurga	Chemistry Botany Geology

**ACADEMIC DISTINCTIONS: Awards/Recognitions:**

Name of Award	Conferring Agency	Year
1. Distinction and Rank in M.Sc.	Mysore University	1986
2. R. Srinivasa Rao cash prize	Mysore University	1986
3. Rajamunivenkatashettyand Buchamma Gold medal	Mysore University	1986
4. L. Rama Rao Gold medal	Mysore University	1986
5. Fellowship Award	District social welfare Dept. Mysore.	1986
6. YOUNG SCIENTIST, KAAS AWARD 1998 Karnataka, in Earth Sciences.	Karnataka Association of Academic Advanced Science -Bangalore.	1998
7. Vijaya Shree Award	Indian International Friendship Society, New Delhi	2005

### **Profile of professional career/ life sketch:**

- Born in 1961 in remote small village, Bhahaddurghatta-Hosahatty Chitradurga dist, Karnataka.
- Education up to degree 1984 (B.Sc) Mysore University in Chitradurga.
- In the PG, Distinction and II Rank in M.Sc. University of Mysore, Department of Studies in Geology. Recipient of Gold medals and Cash awards during PG.
- About 152 publications in the form of peer reviewed national and International papers, edited volumes, Proceeding books, chapters in books and Abstract in the credit.
- Visited Abroad 1991 France, Paris and Germany for the international collaboration and Training on EPMA geochemical analysis.

After entering the same Department of Studies in Geology

- **1987 Research officer** permanent post and registered for the PhD along with the Research and Teaching work in the PG Department.
- **1994 PhD awarded in Precambrian Geology (Structure, Metamorphic Petrology, Fluid inclusion studies and Geochemistry of Archaean Charnockites around Biligirirangan granulites, Chamarajanagara district by University of Mysore.**
- 1994 **Reader** in the Department by Board of Appointment,
- **1998 Karnataka Advanced Applied Sciences (KAAS) Award**
- **2000- 2001** served as a Chairman, Board of Examiner
- **2000** -onwards started Research in Geological Remote Sensing and GIS Applications.
- **2002- Professor** by Board of Appointment
- **2003** to till date, **Chairman** –Indian Geomatic Society Mysore Chapter.
- **2003** to till date **Treasurer**, Mineralogical Society of India
- **2005 Vijayashree Award** from Inter National Freindship Society, New Delhi.

- **2006 to 2010, Chairman, Board of Studies** in UG &PG and Research in Geology, Applied Geology, & Earth Science and Resource Management.
- **2007 and 2008, Head and Chairman** of the Department
- **2008 to till date, President** of Geology Department Alumni Association.
- **9 PhDs** Produced in the Earth Science both National & International
- Publications peer reviewed **46** both National and International
- Presented and Published Abstracts and proceedings in conferences and seminars both national and international 70.

#### **NEW FINDINGS: Contributions to Earth Science**

- Finding of **Kollegal Shear Zone** in Mysore and Chamarajanagar dist, Karnataka India.
- Noticed **D1, D2, D3, & D4 deformational episodes** in the study area and **M1, M2, M3 & M4 Metamorphism** (.KSZ)
- Later **Dextral & Sinistral** type of shearing events and **many active fault Zones trending N40W, N45E and N60W. Older BILIGIRIRANGAN Archaean rocks in Karnataka.**
- **Incipient Charnockite** formation in KSZ is structurally controlled latest stage of Metamorphism in M4 +- 550My.
- **M3-** Rétrogression **.M2-** Granulite formation **M1-**Gneisses formation
- First-formation is Magmatic origin.
- Regional P-T is **P=5.5 to 8.0 Kb and T= 560 to 950 C .**
- Fluids present both **High/Low density and saline type.**
- Crustal Thickness is about **30 to 25Km.**
- **Auriferous Quartz Veins** are reported in the study area.
- Gem verity of **Corundum** is reported in the study area.
- **Scapolite bearing Calc Silicates** are reported from the study area.
- Active fault zones are reported at **B.R.Hills temple & Near Hogenakkal** areas.

- **Tectonic Model** has been developed in the study area. An overprint of Southern Granulites Terrain on Dharwar Craton.
- **Very High-Low fluids** are identified and reported at Kollegal Shear Zone.
- **First time:** Fluids from **younger Sedimentary basins** of South Indian terrains are also reported.
- **Latest Incipient un deformed Charnockite formation PAN AFRICAN TYPE**, structurally controlled **+/- 550 My** have been reported in Kollegal Shear Zone.
- Around 12-14 type of rocks are Igneous, Metamorphic and Metasedimentary rocks also reported in the study area.
- **Detailed** 1.Geological, 2.Geomorphological map, 3. Structural map 4. Contour map, 5. Lineation map, 6.Lithological map 7. Land use land cover maps, 8. Soil maps are also developed.
- Geologically the Biligirirangan terrain confirms to an ancient Achaean terrain and it is also proved a single geomorphic unit.
- Identified the **lineaments are Syngenetic** with the regional structural trend.
- Tectonically Biligirirangan hills can be considered to be the **deformed southern extension** of the Dharwar Craton.
- **Cluster analyses** have been employed to bring out relation ship of assorted metamorphic variables.
- Remote Sensing and Geoinformatics are employed in to the study area
- First time an attempt has been made, paper presented on **Medicinal Geology** in Department of geology, Visakhapatnam Andhra Pradesh from Mysore University.
- Geospatial data acquired on Wastelands studies and its developments in Chamarajanagar and Mysore district.
- Heavy metal analysis and their Environmental impacts assessment through Geochemical and correlation of GIS applications on River water bed sediments of Kabini River. Nanjangud area.
- Applications of Remote Sensing and GIS on **Mysore city Waste disposal site selection, waste management and Environmental impact on ground water prospecting zones. Abstract published** in 39<sup>th</sup> COSPAR July 2012.

### Visits Abroad:

- **Visited as a Scientist for Training in EPMA ameca-Paris, France, 1991.**
- **As a Visiting Scientist, Bonn University, Germany, 1991.**

## **PAPERS PUBLISHED:**

1. 1992: Fluid inclusions in Charnockites, Biligirirangan Hills, Karnataka, in High Grade Metamorphics, Theophrastus Publications A.S.33j., Theologou. Geographies, Athens, Greece. Vol.pp.53-65. with .Srikantappa.C & A.S. Janardhan.
2. 1992: Highly saline fluid inclusions in Chamundi granite, South India. In Current Science, Vol. 62, pp-307-309. with C.Srikantappa & K.N.Prakashnarasimha.
3. 1997: Regional high grade metamorphism of 3.4 Ga Biligirirangan Granulites in the Dharwar Craton, India, Gondwana Research. Vol.8. pp.92-93. Co-author C.Srikantappa.
4. 1998: Morphometric response of the geology and structure in and around Biligirirangan Hill ranges. In Journal of Mineralogical Society of India, Vol. 32, No.1, pp.21-22. Co-authors M.V.Satish., A.Balasubramanian, D.Nagaraj.
5. 1998: Metamorphic evolution of the Biligirirangan Granulites (BRG) Karnataka, India, In journal of the Mineralogical Society of India, Vol.32, No.1, pp.54. . Co-author C.Srikantappa.
6. 1999: Retrograde Charnockite-Gneiss relations in the Kollegal Shear Zone (KSZ). Karnataka India. The Indian Mineralogist, Vol.33. No. 2, pp70-80. Co-author C.Srikantappa.
7. 1999: A major geo-transect corridor across the green stone-granite and granulite –gneiss domains of the south Indian Shield, Deep continental studies in India NEWSLETTER, Vol.9 No.2. . Co-authors Mysore Petrology group.
8. 1999: Diagenetic transformations in Quartz of Kurnool group (Precambrian), Andhra Pradesh., in Journal of Indian Association of Sedimentologist. Vol. 18. No.1, pp.52-59. . Co-author V.Harish.
9. 2000: Geology, structure, Metamorphism and tectonic setup of 3.4 b.y. old Biligirirangan Granulites, South India. In International geological congress, Brazil. . Co-author Srikantappa.C.
10. 2000: Metamorphic evolution and fluid regime in the Deep Continental Crust along the North South Geo transect from Vellar to Dharapuram, South India. . Co-author Srikantappa. C., Srinivas.G.

Prakash Narasimha. K.N. and Basavalingu.B. Vol.34, No.1, pp.32-37 Indian Mineralogist.

11. 2000. Petrography and Geochemistry of late Proterozoic siliciclastics from Karnool group, Karnool sub basin, Andhrapradesh. . Co-author (Harish.V) Jour. Of Indian Association of Sedimentologist, Vol.19, NO, 1&2. PP.93-105.

12. 2001. Earthquake prone areas around Mysore and environmental planning. National Seminar on Environmental hazards priorities and protection in the 21<sup>st</sup> Century, Mysore, Karnataka state pollution control Board. March 2<sup>nd</sup> to 3<sup>rd</sup>, Pp 34-36. Co-authors (Srikantappa and Shahida Sulthana.N).

**13. 2001. Provenance and depositional environment of late Proterozoic Silica-clastics sequence of Kurnool group, Andhra Pradesh. Co-author V.Harish in Journal of Indian Sedimentologist Association, New-Delhi Vol. PP.**

14. 2002 .Metamorphic evolution and fluid regime in the Deep Continental Crust along the North South Geo transect from Vellar to Dharapuram, South India., with Srikantappa. C., Sreenivas.G, Prakash Narasimha. K.N. and Basavalingu.B.

15. 2003. Metamorphic evolution and fluid regime in the Deep Continental Crust along the North South Geo transect from Vellar to Dharapuram, South India.,Co-authors Srikantappa. C., Sreenivas.G, Prakash Narasimha. K.N. and Basavalingu.B. Memoir -50, Geological Society of Indiapp.318-375.

16. 2003. Petrography and P-T conditions of metamorphism of Sargur group of rocks around Hadinaru, Mysore district. . Co-authors Srikantappa. C., Prakash Narasimha. K.N The Indian mineralogist, Vol., 36. No.2&Vol.37. No. 1.

17. 2003. Petrography and Fluid Indusion study on Proterozoic Palnad siliciclastics (Karnool groups) Andhra Pradesh. Co-authors V.Harish, K.N.Prakash Narasimha. Journal of Geological Society if India. Vol.61, PP. 612-618. .

18. 2004. Geochemistry of Gabbroic rocks around Moyar Shear Zone. In Indian Society of Geochemistry Journal Vol.6.No.1 pp.113-120, Hyderabad, India., Co-authors Prakashnarshima.K.N, Srikantappa.C,

19. 2004. Petrochemical characteristics of Achaean metasediments from the Biligirirangan granulite terrain, Dharwar Craton. Co-authors Srikantappa.C and Prakash Narasimha. K.N. The Indian Mineralogists. V.38, no.2, pp.39-45.
20. 2005. Land use and land cover studies around Kollegal, Chamarajanagar District using Remote Sensing and GIS techniques, Co-author Dinakar. S. The Indian Mineralogists., Special vol.01, no.1. Pp-89-94.
21. 2005. The effective factors on water resources in Rasyan valley basin, Republic of Yemen., co-author, M.M.A.Al Muliki. Paper accepted (in press) In Indian Society of Geochemistry Journal Vol.6.No.1 pp.113-120. , Hyderabad, India.
22. 2006. Morphometric analyses of Rasyan Valley basin using remote sensing and GIS techniques Republic of Yemen., co-author, M.M.A.Al Muliki. ISPRS International Journal E-journal.
23. 2007 Morphometric analysis of sub-watersheds of river Suvarnavathi Catchment, Chamarajanagar District, Karnataka using GIS Co-Authors S. Dinakar <sup>1</sup>, H. T. Basavarajappa<sup>2</sup>, H. Honne Gowda <sup>1</sup>, Remote Sensing and GIS Applications, Edited Volume, University of Mysore.
24. 2007 Quantitative morphometric analysis of sub-water sheds in and around Yelandur Taluk Chamaraj Nagar District using GIS, <sup>1</sup>, Remote Sensing and GIS Applications, Edited Volume, University of Mysore, pp. 156-164.
25. 2007. Mapping of ground water potential zones through RS and GIS in Yelandur Taluk, Remote Sensing and GIS Applications, Edited Volume, University of Mysore, pp. 168-178
26. 2008 Spinifex textured Metabasalts of Sonakana Greenstone Belt, Central India S.D. Deshmuk, and K.R. Hari, P. Diwan and HT. Basavarajappa. Vol. 42, No. 1. , pp. 71 to 83.
27. 2008. A comparative analysis of DEM generated from SRTM data and digital topographic map A case study of north east of Hajjah, Yemen, Ali M. Qaid and HT Basavarajappa. Journal of Geomatics, Vol. 2, 2008. pp. 37 to 41.



28. 2008. Integration of Geological, Geochemistry and Remote Sensing data for evolution of the Precambrian rocks, north east of Hajjah, Republic of Yemen. Journal of applied Geochemistry, Ali M. Qaid, HT. Basavarajappa, Vol. 10. pp. 76-91.
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31. 2009.,Calibration Of ASTER and ETM+ Imagery Using Emperical line Method acase study NE of Hajjha ,Yeman.,Ali Ahmad Quieed,Rajeendran, Geospatial information Science vol.12(3),PP.197-201,ID-1009-5020.
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33. 2009.Intigration of VNIR and SWIR Spectral Reflectance for Mapping Mineral Resources. A case study North East of Hajjah, Yeman, Ali. M Quieed and S.Rajendran.Photonirvachak, Springer Journal of Indian Remote Sensing Vol.37. Pp.305-315.
34. 2009. Applications of Wasteland Studies using Remote sensing and GIS of Chamarajanagara Dist. Karnataka, India. Journal of Environmental Geochemistry., Vol.12.No.1&2, pp.5-12. Pushpavathi.K.N,
35. 2009. Mapping of Geological and geomorphological land forms Using remote Sensing and GIS Applications, on Chamarajanagar Taluk, Karnataka, India. Pushpavathi. K.N. and Balasubramanian.A. Journal of the Indian Accadamy of Geosciences.VOL.52.No.1.PP.
36. 2009. Heavy Metal Contaminations of Soils and Vegetation in the Nagarthalli Mysore Dit. Karnataka, India. Azadhe T. Hejabhi., Journal of Environmental Geochemistry. Vol.12.No.1&2. Pp.1-4.

37. 2009. Benifiction studies Manganese ore of Chikkanaikanahalli, Tumkur Dist. South. India. Journal of the Indian Accadamy of Geosciences.VOL.52.No.1.PP. Chinnaiah.
38. 2010. Structure and Stratigraphy of Manganese Deposits of Chikkanaikanahalli, Tumkur Dist. South. India. Journal of the Indian Accadamy of Geosciences.VOL.53.No.1.PP. Chinnaiah.and others
39. 2010. Petrography and Geochemistry of Banded Iron formations of Moyar Shear Zone, Tamil Nadu. India. Journal of the Indian Accadamy of Geosciences.VOL.53.No.1.PP. Prakash Narasimha, and others
40. 2010. Heavy metal Sediment Contamination in Kabiniriver Mysore dist. Karnataka, India. Azadhe T. Hejabhi., Journal of Environmental Geochemistry, Vol.13.No.1. pp.
41. 2010.Heavy metal Pollutionin Kabini river sediments, Azadhe T. Hejabhi InternationalJournal of Environmental Research (ijer)Vol.4., No.4 Automn.
42. 2010. Heavy metal Pollutionin and Geochemical Parameteers of Kabini river sediments, Azadhe T. Hejabhi InternationalJournal of Environmental Research Springesr Vol., No.
- 43 .2011. Heavy metal Pollutionin Kabini river sediments, Using GIS Azadhe T. Hejabhi InternationalJournal of Environmental Research., Springer Vol., No.
- 44 2012. Mapping of Geological and geomorphological land forms Using remote Sensing and GIS Applications, on Mysore Disrict, Karnataka, India.. H.T.Basavarajappa., Pushpavathi. K.N. and Balasubramanian.A. Manjunatha.M.C. Frontiers of Geosciences. Edited .,VOL.1.No.1.PP 64-75.
45. 2012.Heavy Metal partitioning in sediments of the Kabini River in south India., Environmental Monitoring and Assessment, Springer Science +Business media., Azadhe T. Hejabhi and H.T.Basavarajappa DOI.10.1007/s10661-012-2631-z-pp.01-11.
46. 2012. Applications of Remote Sensing and GIS on Mysore city Waste disposal site selection, waste management and Environmental impact on ground water prospecting zones. **Abstract published** Paper Submitted. Accepted in cospar journal

**CONFERENCES Attended / Paper Presented:**

1. Retrogression of Charnockites along Moyar and Bhavani Shear belt, Tamil Nadu, 75<sup>th</sup> Indian Science Congress, Held at Poona. India. 1988 (Ashamanjari.K.G, Srikantappa.C, and Prakash Narasimha.K.N.)
2. Fluid inclusions in Charnockites from the Biligirirangan Hills., NATO Advance Research Workshop, 5-9<sup>th</sup> Sept-1988. France. (Srikantappa.C, Janardhan.A.S.).
3. Petrology and Geochemistry of Archean Granulites from Kollegal, Karnataka. National Seminar on Precambrian Geology 14-16<sup>th</sup> 1990. University of Madras. Pp.39-40., (Srikantappa.C).
4. P-T-X Fluid conditions of 3.4 B.Y old Biligirirangan Granulites from Karnataka, South India., and Second South-Asian Geological Congress. Colombo, Srilanka. 1995. 19-24Jan. (Srikantappa.C).
5. Retrograde charnockite- gneiss relations in the Kollegal Shear Zone, Karnataka, India, International Symposium on charnockite and Granulite Facies rocks, Geologist Association, Tamil Nadu. Madras. 1996 (Srikantappa.C)
6. P-T-X-Fluid inclusion studies of 3.4 B.Y. old Biligirirangan Granulites from Karnataka India. Tenth convention of Indian Geological congress, Dhanbad. Feb1-3 196.pp.09 (Srikantappa.C).
7. Geotectonic Signatures in the Biligirirangan hills, Karnataka, South India., National Seminar on Neotectonic Movements and their Geo environmental impacts, Dece. 27<sup>th</sup> -28<sup>th</sup> 1996. Pp3-4 (Srikantappa.C)
8. Tectonic frame work of Sedimentation in Kurnool Basin (Precambrian), Andhra Pradesh. Pp.14 National Seminar on Neotectonic Movements and their Geo environmental impacts, Dece. 27<sup>th</sup> -28<sup>th</sup> 1996. (Srikantappa.C, Harish.V)
9. P-T Constraints on Granulite Facies Metamorphism in the Biligirirangan Granulite-Gneiss complex around Chamarajanagar, Karnataka, India. Pp. 31 The 1<sup>st</sup> Convention of Mineralogical Society of India and National Seminar Nov 27<sup>th</sup> and 28<sup>th</sup> 1997 (Srikantappa.C) at Karnataka University, Dharwar.
10. Sedimentological Studies and Environmental Significance of Bagalkot formation, Karnataka Pp. 47. The 1<sup>st</sup> convention of

Mineralogical Society of India and National Seminar Nov 27<sup>th</sup> ad 28<sup>th</sup> 1998 (Shivanna) at Karnataka University, Dharwar.

11. Sedimentological Studies of Quartzites of Karnool groups of rocks and environmental significance, pp.7-8, 11<sup>th</sup> convention of Indian Geological Congress Feb 4<sup>th</sup> to 6<sup>th</sup> 1998 (Harish.V). University of Mysore, Mysore.

12. Sedimentation of Northeastern part of Kaladagi Basin (Precambrian) Bijapur district, Karnataka. Pp.8-9. 11<sup>th</sup> convention of Indian Geological Congress Feb 4<sup>th</sup> to 6<sup>th</sup> 1998 (Shivanna). University of Mysore, Mysore

13. Incipient Charnockitization from Migmatized Granitic Gneisses in Kollegal Shear Zone, Karnataka, India. Pp 31-32. 2<sup>nd</sup> Convention of the Mineralogical Society of India and National Seminar on Earth Resources. Jan 10<sup>th</sup> to 11<sup>th</sup> 2000 at Mangalore University, Mangalore. (A.S.Janardhan, Srikanthappa.C, Meenakshi.K).

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15. Geology of Commercial Granites in and around Chamarajnagar District, Karnataka, India. Pp 52-51. 2<sup>nd</sup> Convention of the Mineralogical Society of India and National Seminar on Earth Resources. Jan 10<sup>th</sup> to 11<sup>th</sup> 2000 at Mangalore University, Mangalore. (Jagadisha.D.J).

16. Low Density Carbonic inclusions from the Bhavani Shear Zones, Bhavani, Tamil Nadu, pp39-40. 2<sup>nd</sup> Convention of the Mineralogical Society of India and National Seminar on Earth Resources. Jan 10<sup>th</sup> to 11<sup>th</sup> 2000 at Mangalore University, Mangalore. (Sreenivas.G and Srikanthappa.C).

17. Fluid Regime in the deep continental crust around Bhavani, Tamil nadu, Southern India. Pp 53-54. 3<sup>rd</sup> Convention of the Mineralogical Society of India and National Seminar on Challenges in Precambrian Geology in the new millennium Jan 17<sup>th</sup> to 18<sup>th</sup>, 2001 Mysore (Srikanthappa.C, Sreenivas.G, Basavalingu.B, Prakashnarshima.K.N).

18. Earthquake prone areas around Mysore and environmental planning. *National Seminar on Environmental hazards priorities and protection in the 21<sup>st</sup> Century, Mysore, Karnataka state pollution control Board. March 2<sup>nd</sup> to 3<sup>rd</sup>, 2001 Pp 34-36 (Srikantappa.C and Shahida Sulthana.N).*
19. Geomorphological and Neo-Tectonic responses of the Biligirirangan hill ranges, Southern Karnataka. *Proceedings, Vol. Of National Seminar in Tanjaure in Tamil Nadu August 23&24<sup>th</sup>2002. at Anna University Chennai.*
20. Structural and Neo-Tectonic constraints on Remote Sensing applications of the Biligirirangan hill ranges, (M.V.Sateesh) *National Seminar on Mineral exploration and Management current status and future trends and Fifth Convention of MSI, 21-22<sup>nd</sup> 2002 at Anna University Chennai.*
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22. Geological Field experience in Veerappan Terrain. (C.Srikantappa) *National Seminar on Mineral exploration and Management current status and future trends and Fifth Convention of MSI, 21-22<sup>nd</sup>2002 at Anna University Chennai.*
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35. Sedimentological Studies and Environmental Significance of Bagalkot formation, Karnataka Pp. 47. The 1<sup>st</sup> convention of

Mineralogical Society of India and National Seminar Nov 27<sup>th</sup> ad 28<sup>th</sup> 1998. (Shivanna) at Karnataka University, Dharwar.

36. Sedimentological Studies of Quartzites of Karnool groups of rocks and environmental significance of pp.7-8, 11<sup>th</sup> convention of Indian Geological Congress Feb 4<sup>th</sup> to 6<sup>th</sup>1998. (Harish.V). University of Mysore, Mysore.
37. Sedimentation of Northeastern part of Kaladagi Basin (Precambrian) Bijapur district, Karnataka. Pp.8-9. 11<sup>th</sup> convention of Indian Geological Congress Feb 4<sup>th</sup> to 6<sup>th</sup> 1998. (Shivanna). University of Mysore, Mysore
38. Incipient Charnockitization from Migmatized Granitic Gneisses in Kollegal Shear Zone, Karnataka, India. Pp 31-32. 2<sup>nd</sup> Convention of the Mineralogical Society of India and National Seminar on Earth Resources. Jan 10<sup>th</sup> to 11<sup>th</sup> at Mangalore University, Mangalore2000.. (A.S.Janardhan, Srikantappa.C, Meenakshi.K).
39. Chitradurga Granite Fluid inclusion Studies pp 32. 2<sup>nd</sup> Convention of the Mineralogical Society of India and National Seminar on Earth Resources. Jan 10<sup>th</sup> to 11<sup>th</sup> 2000at Mangalore University, Mangalore. (Prakashnarshima.K.N).
40. Geology of Commercial Granites in and around Chamarajnagar District, Karnataka, India. Pp 52-51. 2<sup>nd</sup> Convention of the Mineralogical Society of India and National Seminar on Earth Resources. Jan 10<sup>th</sup> to 11<sup>th</sup>2000 at Mangalore University, Mangalore. (Jagadisha.D.J).
41. Low Density Carbonic inclusions from the Bhavani Shear Zones, Bhavani, Tamil nadu, pp39-40. 2<sup>nd</sup> Convention of the Mineralogical Society of India and National Seminar on Earth Resources. Jan 10<sup>th</sup> to 11<sup>th</sup>2000 at Mangalore University, Mangalore. (Sreenivas.G and Srikantappa.C).
42. Fluid Regime in the deep continental crust around Bhavani, Tamil nadu, Southern India. Pp 53-54. 3<sup>rd</sup> Convention of the Mineralogical Society of India and National Seminar on Challenges in Precambrian Geology in the new millennium Jan 17<sup>th</sup> to 18<sup>th</sup>, 2001Mysore (Srikantappa.C, Sreenivas.G, Basavalingu.B, Prakashnarshima.K.N).
43. Earthquake prone areas around Mysore and environmental planning. National Seminar on Environmental hazards priorities and

protection in the 21<sup>st</sup> Century, Mysore, Karnataka state pollution control Board. March 2<sup>nd</sup> to 3<sup>rd</sup>, Pp 34-36 2001 (Srikantappa.C and Shahida Sulthana.N).

44. Geomorphological and Neo-Tectonic responses of the Biligirirangan hill ranges, Southern Karnataka. Proceedings, Vol. of National Seminar in Tanjaure, Tamil Nadu, August 23&24<sup>th</sup>2002.
45. Mapping of groundwater potential zones in hard rock terrain through remote sensing and gis, yelandur taluk, Chamarajanagar district, karnataka. Co-authors S Dinakar <sup>1</sup>, D Nagesh<sup>2</sup>, H Honne Gowda <sup>1</sup>2004 International Seminar on Remotesensing and GIS Applications Mysore
46. Morphometric analysis of sub-watersheds of river suvarnavathi catchment, chamarajanagar district, karnataka using gis co-authors S DINAKAR <sup>1</sup>, H. HONNE GOWDA2004 <sup>1</sup> International Seminar on Remotesensing and GIS Applications Mysore
47. Natural resources of Biligirirangan hill ranges using applications of remote sensing and GIS techniques co-authors Pushpavathi.K.N and D. Nagesh International Seminar on Remotesensing and GIS Applications Mysore
- 48.** Lineament study through remote sensing and gis application of biligirirangam hill ranges co-authors Sathish. M.V and D. Nagesh 2004 International Seminar on Remotesensing and GIS Applications Mysore
49. Neotectonic Responses, A Case Study around Biligirirangam Hill Ranges through Remote Sensing and GIS Techniques co-authors, Sathish. M.V and D. Nagesh International Seminar on Remotesensing and GIS Applications Mysore 2004
50. Geomorphological studies of Biligirirangan hill range throughRemote Sensing and GIS Applications co-authors. Sathish.M.V, Raghavan.B.R, Nagesh. 2004
51. Land mitigation hazard zones in biligirirangan hill ranges using remotesensing and gis applications co-authors Dharmaraju.R, A.Balasubramanian, <sup>1</sup>Pushpavathi.K.N. 2004
52. Mapping of kukkarahalli lake of manasagangotri using gps and gis techniques. Co-authors Nagesh.D, Suresh Kumar, Pushpavathi.K.N, and A.Balasubramanian 2004.



54. 3D model of Chamundi hill, Mysore, using GPS and GIS. Co authors, Nagesh., D Dinakar D., Balasubramanian, A. MSI convention and National seminar , Thanjaure Tamilnadu.

55. Waste land studies using remote sensing and GIS around Chamarajanagar, Karnataka. Co-authors Nagesh.D, Suresh Kumar, Pushpavathi.K.N, and A.Balasubramanian.MSI convention and National seminar, Thanjaure Tamilnadu. 2005

56. The effective factors on water resources in Rasyan valley basin, Republic of Yemen., co-author, M.M.A.Al Muliki Society of Applied Geochemistry Journal Vol.6.No.1 pp.113-120. 2005, Hyderabad, India.

57.. Morphometric analyses of Rasyan Valley basin using remote sensing and GIS techniques Republic of Yemen., co-author, M.M.A.Al Muliki. Geographycal congress Bangalore in Dec.2005.

58. Hydrothermal Alterations Zones study Using hyperspectral studies using GIS of Yeman Rocks.Ali M Quieed., National Workshop .Annamalai University, Chidamberam 2008.

59. Hydrothermal Alterations Zones study Using hyperspectral studies using GIS of Yeman Rocks.Ali M Quieed., National Seminar at .Hyderabad Osmania Univesity 2008.

60. Hydrothermal Alterations Zones study Using hyperspectral studies using GIS of Yeman Rocks.Ali M Quieed., National seminar at Hyderabad, AMD/NGRI Division .2008.

61. International Conference at Yeman Secretareates Yeman on Climate Changes AlMuliki2009.

62. Waste Land identification using remote Sensing and GIS in Kollegal taluk, Chamarajanagar, Karnataka, India, K.N.Puspavathi, national Seminar , anna university, Chennai, tamil Nadu. 26 -28<sup>th</sup> November 2009.

63. Hydrothermal Altrations Zones study Using hyperspectral studies using GIS Of Yeman Rocks.Ali M Quieed., National Work Shope at Mysore University. Feb 26 and 27<sup>th</sup> 2009.

64. Attended the **international Seminar on Crystal growth** at Mysore University FEB.2009.

65. Indian Natural resources Management A case Study. In the International Seminar on Indian Geographers Meet. Banagalore. 2010 Jan-19-20. Azadhe t Hezabe.

66. Indian Natural resources Management A case Study. In the International Seminar on Indian Geographers Meet. Banagalore. 2010 Jan-19-20. Azadhe t Hezabe.

67. Heavy metal assessment in Kabini river bed sediments Nanjungud taluk, Mysore dist, National seminar on March 2011, University of Mysore.

68. ttended the National Work shop on Sedimentary terrains and mineralization with Golden Jubilee Celebrations and Alumni meet, 2011, Sept. 28<sup>th</sup> 729<sup>TH</sup> AT dos IN Earth Science. University of Mysore.

69. Attended the national Seminar on Biodiversity and Geospatial studies of Western Ghat, DOS IN Earth Science. University of Mysore. April 29<sup>th</sup> and 30<sup>th</sup> 2012.

70. Mapping of Geological and geomorphological land forms Using remote Sensing and GIS Applications, on Mysore Disrict, Karnataka, India..H.T.Basavarajappa.,Pushpavathi.K.N.andBalasubramanian.A.and Manjunatha.M.C. national conference on Frontiers of Geosciences,at Gulburga Central University. On May 5th to 7<sup>th</sup> 2012.

71. Applications of Remote Sensing and GIS on Mysore city Waste disposal site selection, waste management and Environmental impact on ground water prospecting zones. **Abstract published** Paper Submitted. Accepted in cospar international conference July 14<sup>th</sup> -22 2012. At INFOSIS, Mysore.

## **CONFERENCES/SEMINARS ORGANIZED:**

### **CONDUCTED:**

1. Organized and conducted Four weeks **Environmental Education Training program/ efresher course organized** as a member and resource person at Dept. of geology UOM, **1997**.

2. Organized and Conducted **National Seminar on Neo-tectonics** organized, successfully conducted, paper presented as organizing secretary at Dept of geology, UOM ,1996.

3. Organized and **National Seminar on Petrology and Mineralogy with MSI convention** Working member of IGC-1998 at Mysore university.

4. Organized and **Conducted III convention of MSI-2001** as organizing Secretary at Mysore. Third convention of Mineralogical society of India and **NATIONAL SEMINOR ON CHALLENGES IN PRECAMBRAIN GEOLOGY IN THE NEW MILLENNIUM** JAN 2001. paper presented and organized as a organizing secretary at DOS in Geology, UOM.

5. Conducted as a coordinator, One Day **Remote sensing exhibition /workshop** for the awareness of Remote sensing studies for the benefit of Mysore University Teachers and students Jayalakshmivilas Mansion on 3<sup>rd</sup> may 2002.

6. Organized and Conducted the Inter **National Seminar on Geoinformatics** - 2004 as Organizing Secretary -2004 Dec. 13 and 14 at Mysore. **DOS in Geology**

7. Organized and conducted the work shop on **MAP INFO** by OMCAD Ltd.- Bangalore at Dept. Geology, university of Mysore, Manasagangothri Mysore. 2005

8. Conducted the work shop on **ERDAS** by Licon Ltd. – Bangalore at Dept. Geology, university of Mysore, Manasagangothri Mysore. 2006

9. Organized and conducted the Two days work shop on Mineral **exploration** at Dept. Geology, university of Mysore, Manasagangothri Mysore. 2009. as a convener

10. Organized and conducted the Two days National Seminar and MSI convention As a Co-convener march 17 and 18. Dept. Geology, university of Mysore, Manasagangothri Mysore. 2009

10. Organized and conducted the work shop / Training Programme on **ERDAS** by Licon Ltd. – Bangalore with the collaboration of main ERDAS Kolkatta, for the all staff members at Dept. Geology, University of Mysore, Manasagangothri, Mysore. 2006.

11. Organized and Conducted the Professional Training programme on Software **GEOMATICA by PCI Geomatica Ltd. New Delhi , with the collaboration of main Geomatica, Netherlands** for the Final

Year Pg Students of **2007-08**, at Dept. Geology, University of Mysore, Manasagangotri Mysore.

12. Organized and Conducted the **Professional Training Programme on Field Geological Training** at the Chitradurga, Field training center, Geological Survey of India, Govt. of India for the Final Year PG Students of **2006-07**. With the collaboration of Hyderabad and Bangalore GSI.

13. Organized and Conducted the **Professional Training programme on Field Geological Training** at the Chitradurga, Field training center, Geological Survey of India, Govt. of India for the Final Year PG Students of **2007-08**. With the collaboration of Hyderabad and Bangalore GSI.

14. Organized and Conducted the **ANNUAL TOUR and Field Geological Training** for the Final Year PG Students of **1988-89**. South India., Parts of Karnataka, TamilNadu and Kerala.

15. Organized and Conducted the **ANNUAL TOUR and Field Geological Training** for the Final Year PG Students of **1992-93**. South India. Parts of Karnataka, Tamil Nadu and Kerala.

16. Organized and Conducted the **ANNUAL TOUR and Field Geological Training** for the Final Year PG Students of **1998-99**. South India Parts of Karnataka, TamilNadu, Goa and Kerala.

17. Organized the **Study trip** for the PG Students attended and participate in the Lecture Series Seminar at Dharwad, Karnataka University, 2006.

18. Organized the **Study trip** for the PG Students attended and participate in the Lecture Series Seminar at Kuvempu University, 2007. at Applied Geology Department.

19. Organized the **Study trip** for the PG Students attend and participate in the Lecture Series Seminar at Mangalore University, 2008. at Moraine Geology Department

20. Organized the **Study trip** for the PG Students attended and participate in the Lecture Series Seminar at Bangalore University, 2009. at Geology Department.

21. Organised and conducted the golden jubili workshop and Alumni meet 2011 department of earth science on sedimentary basinal study on Indian rocks.

### **Research projects:**

- Integrated geological Studies in the Kuppam- Kanyakumari transect across the deep continental crust of South India, DST.(21 lakhs) - CO-PI
- Medicinal geology from UOM, UGC (10,000) completed. - PI
- Structure and Tectonic study Using Remote Sensing and GIS, UGC (10.46 Lakhs) – completed - PI

**Number of Ph.D candidates successfully completed : 09**

**Number of Ph.D candidates currently working : 01**

### **Books/Edited/ Abstract /Proceedings Volume:**

Sl. No.	Author/s	Title	Publisher	Year of publication	Page No.
1.	Chief Editor and organizer	REMOTESENSING and GIS APPLICATIONS	Bellur Kamalamma Publications , Mysore	2007-08	1-199
2.	Editor & organizer	Abstract volume on NEOTECTONICS NATIONAL SEMINAR Abstract volume on Mineralogy and Petrology and III Convention of MSI NATIONAL SEMINAR	Department of Studies in Geology, University of Mysore	1996	1-109
3.	Editor and organizer	Abstract volume on Precambrian studies through New Millennium 2000. NATIONAL SEMINAR	Department of Studies in	2001	1-99
4.				2004	1-98

5	Editor and organizer	Abstract volume on REMOTESENSING and GIS APPLICATIONS NATIONAL SEMINAR	Geology, University of Mysore	2009	1-99
	Editor and organizer	Abstract volume on Recent trends in Mineral Exploration (Mineral, water and fuel)	Department of Studies in Geology, University of Mysore  Department of Studies in Geology, University of Mysore		

#### **POST DOCTORAL STUDIES:**

#### **• SEDIMENTOLOGICAL AND GEOCHEMICAL STUDIES OF KARNOOL GROUP (PRE-CAMBRIAN), ANDHRA PRADESH, SOUTH INDIA: 1995**

#### **ACHEVEMENTS:-**

- Geological maps.
- Carbonates revealed that calcite and quartz are the dominant constituents by X-Ray diffraction.
- Chemistry of Karnool sediments revealed that they were deposited in a marine environment.
- Petrographic study to understand the genesis of sediments and environmental significance. The results obtained indicated that the sediments were brought and deposited in a beach to shallow marine environment.
- The macro and micro stylolites associated with the carbonates have been studied to understand the probable tectonic influence in the area.

- Pre and post diagenetic effects in the area were studied in order to reveal the environment of deposition.
- **LITHOSTRATIGRAPHY, MICROFACIES AND DEPOSITIONAL ENVIRONMENT OF NORTH-EASTERN PART OF KALADGI BASIN, KARNATAKA, SOUTH INDIA. 1997.**

#### **ACHIEVEMENTS:-**

- Geological map.
- Study of macro and micro structures revealed that the sediments are deposited in an beach to shallow marine environment.
- The shale are deposited in a marine alkaline environment inferred by the argillites by X-Ray diffraction.
- The facies analysis is based on parameters such as lithology, grain size, geometry, primary physical structures and microscopic study. Five facies are identified and forms the fining upward sequence.
- The study of pre and post diagenetic effects contact between the different grains and authigenic quartz over growth around the detrital quartz grain has been carried out.

- **GEOMORPHOLOGICAL IMPACTS OF TECTONIC MOVEMENTS IN AND AROUND BILIGIRIRANGAN HILL RANGES KARNATAKA, INDIA.2003.**

#### **ACHIEVEMENTS:-**

The Geomorphological field investigations and the survey of literature, it could be concluded that there exists continuity between the eastern Dharwar Craton and parts of Biligiri-rangan hills. Thus Biligirirangan hills form a structurally complex terrain showing at least three periods of deformation, shearing events and active faults trending N40°W and N60°W.

Tectonically Biligirirangan hills can be considered to be the deformed southern extension of the Dharwar Craton, which was subsequently exhumed during thrusting over the Dharwar craton.

Quantification in terms of morphometric attributes of a drainage basin is pertinent to appreciate morphometric variables involved as variable systems. Cluster analysis has been employed in detail (ward, 1963), to bring out relationship of assorted morphometric variables. Using

lithologic and morphologic controls which twenty-three morphometric variables have been subjected to cluster analysis of the entire order sub basins, sixteen morphometric variables have been subjected to cluster analysis on two distinct lithologic clans, viz., Charnockite terrain and peninsular gneisses and sixteen morphometric variable have been subjected to cluster analysis on two distinct morphological clans, viz. highland area and lowland area, here morphometric systems and sub-systems have been established.

- **PETROLOGY, GEOCHEMISTRY AND FLUID INCLUSION STUDIES IN KOLLEGAL SHEAR ZONE (KSZ) AND MIGMATITIC GNEISSES AROUND CHAMARAJANAGAR, KARNATAKA, INDIA. 2005**

**Achievements:-**

This Kollegal shear zone is deformed and disturbed by metamorphisms of mainly 4 types (M1, M2, M3, AND M4). The younger granitoids are formed at the time of M4 by crustal collision Fig. with very low temperature and pressure i.e. 4 to 5 kb. and 550 to 650°C with formation of pan African type of charnockitization is a significant investigation by the author in this study. A tectonic region of early collision followed by a late stage extensional tectonics is envisaged based on P-T-t path in the study area. Reworking of early crust along shear zone, the migmatization, magmatism and intrusion of younger rocks took place during the extensional tectonic regime, during Neo-Proterozoic to Pan African types, (M4).

The earliest syn-metamorphic fluids are reserved in quartz and garnet and in matrix of plagioclase in granulites and gneisses of the Kollegal shear zone. The CO<sub>2</sub> monophase inclusion of high density appears to have been derived from mantle sources. Occurrence of high-density CO<sub>2</sub> inclusions indicates extensive magmatic underplating below the crust.

Fluid inclusions suggest that most of the CO<sub>2</sub> inclusions to be post-peak metamorphic with reference to M2 and their CO<sub>2</sub> density data pass mineral P-T box for M2 indicating fluids are synmetamorphic with earlier lower density of M1, P-T box of gneisses with lower density of hydrous inclusions.

Fluids in retrogression represents M3 and finally very low density fluids fall on M4 i.e. Pan African type.



- **MEDICINAL VALUES OF MINERAL SPECIES AND THEIR POTENTIAL AVILABILITY IN KARNATAKA STATE, INDIA**

**Significance:**

This proposed research study is an inter disciplinary work provides data with regards to the sources of raw materials, their availability, potential usage manufacturing distribution and consumption by population this advanced approach in earth science would be beneficial to the people working in this field and beneficial to the state of Karnataka for meeting the future requirements of chemicals and in medicine manufacture.

- Natural minerals used.
- Mineral groups, medicines and their therapeutic categories.
- Potential availability of minerals.
- Evaluate the economic viability of extraction, in particular, Ayurvedic system.

- **Petrology, Geochemistry, and Fluid inclusion studies around Kollegal Shear zone, Chamarajanagar dist. Karnataka, South India. 2003**

**Significance:**

- Field geology and field mapping of Kollegal Shear Zone (K S Z) rocks.
- Fluid inclusion studies of KSZ.
- Geochemistry.
- Mineral chemistry.
- Tectonic Structural mapping and interpretations.
- Groundwater Prospecting Shear Zones in the study area.

- **Geomorpological and land use land cover studies using Remote sensing and GIS applications on Kollegal Shear zone , Chamarajanagar dist. Karnataka, South India. 2005**

**Significance:**

- Land cover/ land use.
- Geomorphology.
- Structural.
- Lineaments.
- Morphometric analysis.

- Tectonic study.
  - Ground water prospecting zones in shear zones.
- **Geomorphological land and Morph metric analysis and water harvesting techniques on Resyan Valley Basin (RVB) of YEMEN. Forgin National**

**Significance:**

- Land cover/ land use.
  - Geomorphology.
  - Morphometry.
  - Structural.
  - Lineaments.
  - Tectonic study.
  - Ground water prospecting zones in shear zones.
  - Surface Rain water harvesting.
- **Hydrothermal Alteration Zones on mineral exploration using Remote sensing and GIS techniques of YEMEN. Foreign National.**

**Significance:**

- Remote sensing Applications on Mineral exploration using Hyperspectral analysis
- Calibration of ASTER and ETM+, SRTM –Shuttle Radar Topography Mission, LANDSAT-7 Images.
- Spectral Signatures.
- Optimum Index Factor Study.
- Study of NDVI.
- Creation of DEM.
- SRTM DEM.
- ELM- Empirical Line Method.
- PCA-Principal Component Analyses.
- Band Ratio analyses.
- Lineaments extractions.
- GIS and GPS Applications, ASD –Analytical Spectral Devices-Field spec-3.

- **Waste land studies using Geomorphology and remote sensing with GIS applications Chamarajanagar dist. India...**

- Geomorphology
- Land use Land cover
- Morphometric analysis
- Soil study and mapping
- Geology and structure
- Lineaments
- Waste Land studies.

- **Geochemistry and Heavy metal analysis and Environmental Impact on Kabini River Bed Sediments around Nanjangud area Mysore District.**

- Geochemistry
- Heavy metal analysis
- Environmental pollution
- Environmental impact
- Correlations
- GIS analysis

**Dissertations guided:**

Nearly more than 45 **Dissertations** and 55 **Field projects** have been guided for the M.Sc students on

1. Field geology
2. Petrology
3. Structural geology
4. Geomorphology
5. Petrography
6. Photogeology
7. Mining
8. Economic Geology
9. Instrumentation
10. Geotectonics
11. Geodynamics
12. Geotectonical elements
13. GPS applications
14. Soil studies
15. Surveying
16. Remote sensing applications

17. Image interpretations
18. Lake studies
19. River valley projects
20. GIS applications
21. Land use/ land cover studies
22. Lineament extraction studies
23. Drainage morphometry
24. Shear zone studies
25. Urban study
26. Soil and forest conservation
27. Ground water potential zones
28. Seismic studies
29. Geochemistry
30. Fluid inclusion studies
31. Mineral Exploration
32. Hydrothermal Alteration Zones in the Mineralized Zones
33. Hyperspectral Image study
34. GPS applications
35. Mineralogy
36. Granite technology
37. Ornamental stone Technology
38. Neotectonics
39. Shear Zone aspects
40. Medicinal Geology
41. Natural Resources
42. Natural Disaster Management
43. River Valley Projects
44. Mining Impacts on Environment
45. Ground Water Potential Zones in Hard rock terrains
46. Engineering Geology
47. Tunnel engineering
48. Dam and Reservoir selections
49. Geophysical survey
50. Flood zone assessment and Hazards
51. Seismic Zones / earth quakes studies
52. Waste management and site selection for the Mysore city waste Disposal
53. Field mapping and uranium mineralization in late Archaen (Precambrian) Proterozoic Sedimentary rocks.
54. Environmental Issues in Precambrian terrain of Dharwar Craton
55. Soil pollution and Soil Erosion using Remote Sensing and GIS Applications
56. Applications of Parcel level study using remote Sensing and GIS

57. Geomorphology, Geology, Land Use/Land Cover, Soil mapping of the Mysore district
58. Hyperspectral Remote Sensing on Soils of Karnataka
59. Applications of GIS of Soils study in Karnataka.
60. Arsenic contamination and Environmental Impact on Soils of Raichur district.
61. FIELD MAPPING AND STUDY OF Uranium deposits Jarkand area

**Nearly 27. Ph.D.,** Thesis are Adjudicated and awarded from the state and inter state in India.

#### **Ph. D. Thesis Adjudicated:**

1. Sedimentological and geochemical studies of kurnool group (pre-cambrian), Andhra Pradesh, south India: 1995
2. Lithostratigraphy, microfacies and depositional environment of north-eastern part of kaladgi basin, Karnataka, south India. 1997
3. Geomorphological impacts of tectonic movements in and around biligiri-rangan hill ranges Karnataka, India. 2003.
4. Petrology, geochemistry and fluid inclusion studies in kollegal shear zone (ksz) and migmatitic gneisses around chamarajanagar, Karnataka, India. 2005
6. Doctoral degree of Dr. V. Harish on Sedimentology and Sedimentary Petrology and Geochemistry of Cuddapah and Kurnool basin , Andhra Pradesh, 1995
7. Doctoral degree of Dr. Shivanna on Sedimentology and Sedimentary Petrology and Geochemistry and investigations on stromatolites of North -Eastern part of the Kaladgi basin Karnataka. 1998
8. Doctoral degree of Dr. M.V. Satish on Geomorphological structural studies Using visual interpretations of Remote sensing and GIS applications of Biligirirangan hill ranges, Karnataka, INDIA. 2000
9. Petrology, Geochemistry, and Fluid inclusion studies around Kollegal Shear zone, Chamarajanagar dist. Karnataka, South India. 2005
10. Geomorphological and land use land cover studies using Remote sensing and GIS applications on Kollegal Shear zone, Chamarajanagar dist. Karnataka, South India. 2005

11. Geomorphological land and Morph metric analysis and water harvesting techniques on Resyan Valley Basin (RVB) of YEMEN. Forgin National 2008.
12. Hydrothermal Alteration Zones on mineral exploration using Remote sensing and GIS techniques of YEMEN. Forgin National. 2009,
13. Hydro and Pedo Geochemistry of Patancheru Industrial Area, Medak District, Andhra Pradesh. Applied Geochemistry Department: Department of Applied Geochemistry, Osmania University.2008
14. Integrated hydrogeological and environmental investigations for ground water characterization in hard rock terrain, Maheshwaram water shed, Ranga reddy district, AP. department of geology, Osmania University, 2008.
15. Ground water resource evaluation by geochemistry and geological methods using GIS and Remote Sensing, Zaheerbad area, Medak district, Andhra Pradesh. Hyderabad, .2006
16. Microbial prospecting studies for hydrocarbon exploration in Jamnagar sub basin, Saurashtra Gujarat.department of Applied Geochemistry. Osmania University. 2008
17. Hdoro and Pedo-geochemistry in relation to land use/land cover in and around Machera, Guntur district, Andhrapradesh –a Remote Sensing and GIS approach department of applied geochemistry. Osmania University .2009
18. Geochemistry of carbonates from Aryalur-Pondicherry sub-basin of Tamil Nadu department of applied geochemistry, Osmania University .2006
19. Surface geochemical indicators and their application in hydrocarbon prospecting: a study from Jamnagar area, Saurashtra basin, Gujarat, India. Department of applied geochemistry. Osmania university. 2007
20. Near shore morphodynamics and sediment process-using remote sensing data of Gahirmatha inlets, Orissa, east coast of India., department of geology., . Osmania University.2008
21. Costal dynomics and coastal zone management in central karnataka coast- a remote sensing and GIS approach.,department of Marain geology ,Mangalore University.2008.

22. Mapping irrigated areas of India using terra aqua MODIS time – series through ideal spectra generation, spectral matching techniques, and hyperspectral, vegetation indices, Department of Applied Geology, Kuvempu University. 2009.

23. Environmental impact assessment a control measures in mining-a study of lime stone mines in Ranga reddy district, Andhra Pradesh department of geology, Osmania University 2010’.

24. Integrated assessment of geomorphological and hydrological studies using RS and GIS around Kuderu halla, T. Narsipura taluk, Bangalore University in 2010.

25. Structural constraints and isotope geological study around Bastar Craton, india, Jadavpur University. 2011

26. Environmental impact assessment a control measures in mining-using GIS and Remote Sensing a study of lime stone mines in Ranga reddy district ,Andhra Pradesh department of geology, Osmania University ., 2011.

27. Environmental impact assessment a control measures in mining-area of using GIS and Remote Sensing a study ,Andhra Pradesh department of geology, Osmania University ., 2012.

#### **TEACHING EXPERIENCE:**

**Teaching Experience : 25 years of teaching** experience in the field of Petrology Geochemistry, Structural geology, Mineralogy, Photo geology, Remote Sensing and applications, Geoinformatics, Geomorphology, Applied Geomorphology, Shear zone and Geo-Tectonic Applications with respect to the Remote Sensing, and GIS Environment aspects of Earth Science division.

**Research experience : 26 years Research** experience in thrust areas of national and International Geological aspects, in the field of Petrology, geochemistry, fluid Inclusion studies structural geology, Applied Geomorphology, Geotectonic, Remote sensing, GIS, GPS Applications and Geo-Environmental

aspects. Shear Zone studies, Natural hazards by geological actions and earth quake studies and seismological tectonic events.

**Field of Specialization : Precambrian Geology-**Geoinformatics and Remote Sensing ,Petrology, Geochemistry, Fluid Indusion studies, applied geomorphology, Structural Geology, Field Mapping techniques, EPMA, ICP Techniques, Remote Sensing and GIS Applications, Geotectonic and Shear zone applications and Medicinal Geology, Seismo tectonic studies of Southern India. Geomatic studies Geomodelling Tectonic modeling involved in deep Crustal studies including Neo-proterozoic , and Neotectonic studies on Dharwar Craton in South Indian terrain and other parts of India High grade rocks of Granulites terrains.

**Technical experience : EPMA, ICP, AAS, DTA, XRD, Remote Sensing and GIS** and GPS, **Field Geology** techniques and experiences of Field mapping and knowledge of Structural studies and analysis in field Geology.

Surface and sub surface geological exploration and economic mineral deposits identification through the high resolution and hyperspectral studies.

### **EPMA Analytical Training at France Paris,**

:Fluid indusions studies has been carried out on metamorphic, Igneous, and Sedimentary rocks, using the Instruments **CAIXMECA and LINKAM** micro thermometry till extracted significant data from the work and published research paper. (Trained in Mysore University).

: The major and trace element analyses is studying in **AAS** new model by Precloric acid and Hydrofluoric acid and digestion method. (Trained in Mysore University).



: Experience of rare earth elemental analysis in the **ICP** (trained in IIT Mumbai).

: P-T estimation and Mineral chemistry has been carried out by using Electron Micro Probe Analyzer (trained in France and Germany).

: Experienced in using instruments like X-ray diffraction (XRD) differential Thermal Analyses (DTA) Scanning Electron Microscope (SEM).

: Newly involved in the Geophysical, Seismic and Earth quake studies, Applied Geomorphology, Photo geology Remote sensing Application and Geo-and Neo-tectonic studies, Deep Crustal Studies, Medicinal geology through Ayurvedic Sciences.

**Field Experience** : **Experience in Field Mapping and Structural studies in Igneous, Sedimentary, and Metamorphic terrain, regularly conducting field workshops around Sargur rocks Low and high grade Granulite terrain of South India., Geomorphotectonic studies and Geomorphometric analyses, Waste land studies and its developmental activities including Geomatics of the South Indian Rocks.**

**Technical Training** : Electron Micro Probe Analyzer (EPMA) Training at CAMECA, Paris, FRANCE. (1991).

: Induction Coupled plasma Spectrophotometer Earth Science Dept. IIT Mumbai (1991).

: **Field Mapping and Structural aspects in Dharwar Supracrustals of Chitradurga. Field training conducted jointly by GSI and DST at Chitradurga training center, 1994.**

: **\*Remote sensing, Image interpretation, Digitization and GIS applications on Geological Studies,** UNESCO sponsored training at Anna University, Chennai, and IIRS in Chennai. 2002 Trained on ERDAS imagine, Geomatics, Arc GIS, CAD, AutoCAD Land disk.

**:Remote sensing, Image interpretation, Digitization and GIS applications on Geological and Environmental studies Studies its Applications Training, Department of Studies in Geology, in GIS lab- bY the Experts from ERDAS India Pltd, Bangalore and Kolkatta.,**

**: Map Info and Vertical Mapper from Omcad pltd, Bangalore.**

**: Geomatica-10 by New Delhi Assisted by the Netherlands.**

**ACADEMIC DUTIES PERFORMED:**

**CHAIRMAN/MEMBER OF AUTHORITY/COMMITTEE ETC:**

- 1. Former Chairman and Head, Department of Studies in Geology (2007 & 2008).**
- 2. Chairman BOS Department of Studies in Geology (2006 to 2010).**
- 3. Coordinator UGC SAP IV Phase (2007 to present).**
- 4. Chairman of the Indian Society of Geomatics, Mysore Chapter. Mysore. (2003 to 2011).**
- 5. Editorial Board Executive council member of the Journal of applied geochemistry, Hyderabad 2008-2011.**
- 6. Member of the Board of studies and BOE in Geology, Mysore University. (2000 to Present).**
- 7. Member of the Board of studies and BOE in Geology, Bangalore and Mangalore, Karnataka, Kuvempu Universities.**
- 8. Life member of Mineralogical Society of India, Mysore.**
- 9. Acting Executive council member of the Mineralogical Society of India, Mysore.**

10. **Treasurer** of Mineralogical society of India.
11. **Life member** of Indian Geomatic, Space science Center, Ahmadabad.
12. **Life member** of India International Friendship Society, New Delhi.
13. **Executive Council Member** of the Dept. DOS in Geology.
14. **Founder member** of Environmental Awareness, Environmental Society of Mysore.
15. **Exhicutive Council Member** of the Faculty of Science and Technology, University of Mysore, Mysore.
16. **Doctoral committee Counseling member** of the Anna University, Chennai.
17. **Doctoral Committee counseling member** of the DOS in Geology, University of Mysore, Mysore.
18. **Doctoral Committee counseling member** of the Kuvempu University.
19. **Doctoral committee Counseling member** of the Bangalore University.
20. **Member of the PG Council** of University of Mysore.
21. **Member** of the Standing / equivalence committee for SC/ST CELL UOM.
22. **Board of Studies in Geology and Applied geology**, Bangalore University.

**RESEARCH INTERESTS:**

Field Geology, Field mapping, Geochemical -analytical Studies, Fluid inclusion Studies, Rocks, Mineral, Gems, Ornamental stones and Decorative stones Prospecting identification Chemistry, analyses, Land Scape designing, Maintenance of rock gardens, Geoinformatics and Remote Sensing, Geomorphological, Slope, Soil, Earth Quakes, Shear Zones, Structural Geotechnical , Rock stability, Hydrological, Urban

Planning, Environmental Issues, Lithological classifications, advising in Advanced Education System. DIGITIZATION and Digital image processing and Cadastral level thematic mapping of the entire Karnataka state. Remote sensing and GIS techniques in Mineral exploration using Hydrothermal Alteration zones of Precambrian rocks of India and out side India. For the Earth and Environmental Science, Reservoir constructions, irrigational activities , Slope and Slope parameters, Lineament Studies, Shear Zone Studies, Plate tectonics, Earthquake studies, Seismo tectonics.

#### **RESEARCH EXPERIENCE:**

**Technical experience : EPMA, ICP, AAS, DTA, XRD, Remote Sensing and GIS and GPS, Field Geology** techniques and experiences of Field mapping and knowledge of Structural studies and analysis in field Geology.

Surface and sub surface geological exploration and economic mineral deposits identification through the high resolution and hyperspectral studies.

#### **EPMA Analytical Training at France Paris,**

:Fluid inclusions studies has been carried out on metamorphic, Igneous, and Sedimentary rocks, using the Instruments **CAIXMECA and LINKAM** micro thermometry till extracted significant data from the work and published research paper. (Trained in Mysore University).

: The major and trace element analyses is studying in **AAS** new model by Perchloric acid and Hydrofluoric acid and digestion method. (Trained in Mysore University).

: Experience of rare earth elemental analysis in the **ICP** (trained in IIT Mumbai).

: P-T estimation and Mineral chemistry has been carried out by using Electron Micro Probe Analyzer (trained in France and Germany).

: Experienced in using instruments like X-ray diffraction (XRD) differential Thermal Analyses (DTA) Scanning Electron Microscope (SEM).

: Newly involved in the Geophysical, Seismic and Earth quake studies, Applied Geomorphology, Photo geology Remote sensing Application and Geo-and Neo-tectonic studies, Deep Crustal Studies, Medicinal geology through Ayurvedic Sciences.

**Field Experience :Experience in Field Mapping and Structural studies in Igneous, Sedimentary, and Metamorphic terrain, regularly conducting field workshops around Sargur rocks Low and high grade Granulite terrain of South India., Geomorphotectonic studies and Geomorphometric analyses, Waste land studies and its developmental activities including Geomatics of the South Indian Rocks.**

#### **TRAINING/SHORT COURSES ATTENDED:**

##### **Technical Training :**

Electron Micro Probe Analyzer (EPMA) Training at CAMECA, Paris, FRANCE. (1991).

: Induction Coupled plasma Spectrophotometer Earth Science Dept. IIT Mumbai (1991).

: Field Mapping and Structural aspects in Dharwar Supracrustals of Chitradurga. Field training conducted jointly by GSI and DST at Chitradurga training center, 1994.■

**:\*Remote sensing, Image interpretation, Digitization and GIS applications on Geological Studies,** UNESCO sponsored training at Anna University, Chennai, and IIRS in Chennai. 2002 Trained on ERDAS imagine, Geomatics, Arc GIS, CAD, AutoCAD Land disk.

**:Remote sensing, Image interpretation, Digitization and GIS applications on Geological and Environmental studies Studies its Applications Training, Department of Studies in Geology, in GIS lab- bY the Experts from ERDAS India Pltd, Bangalore and Kolkatta.,**

**: Map Info and Vertical Mappe- from Omcad pltd, Bangalore.**

**: Geomatica-10 by New Delhi Assisted by the Netherlands.**

**: Internet and Website training at Mysore University**

**: Finance and Accounts Training at Mysore University**

#### **EXPERTISE IN:**

Field Geology, Field mapping, Geochemical -analytical Studies, Fluid inclusion Studies, Rocks, Mineral, Gems, Ornamental stones and Decorative stones Prospecting identification Chemistry, analyses, Land scape designing, Maintenance of rock gardens, Geoinformatics and Remote Sensing, Geomorphological, Slope, Soil, Earth Quakes, Shear Zones, Structural Geotechnical , Rock stability, Hydrological, Urban Planning, Environmental Issues, Lithological classifications, advising in Advanced Education System. DIGITIZATION and Digital image processing and Cadastral level thematic mapping of the entire Karnataka state. Remote sensing and GIS techniques in Mineral exploration using Hydrothermal Alteration zones of Precambrian rocks of India and out side India. Mining aspects, rain water harvesting, wasteland studies, Neotectonics, Environmental applications, Analysis of Shear zone aspects. Visual and and digital interpretation of Aerial photographs and Satellite images of Low and High resolution. Life size models of Live Volcano and other geological models for science exhibitions.

**Software's Known: ERDAS, GEOMATICA, MAP INFO, Auto CAD Land Disk, Arc GIS, Vertical Mapper, and Window Movie Maker**

**Resource Person: For the Earth and Environmental Science. Related to the Petrology, fluid inclusions, Geochemistry, Structural geology, field geology, Remote Sensing, Geoinformatics, Geomorphology, Photo geology and Photogrammetric, GPS Surveying, Land use/Land cover and Waste land studies and its Developments, Reservoir constructions, irrigational activities , Slope and Slope parameters, Lineament Studies, Shear Zone Studies, Plate tectonics, Earthquake studies, Seism tectonics.**

**Surveying equipments known: Compass, GPS, Total Station.**

**LABORATORY EXPERIENCE:**

**Mineral analysis and rock analysis with EPMA, ICP, XRD, XRF, FTIR  
Petrology and Fluid Inclusion study of different rocks on, IGNEOUS,  
SEDIMENTARY and METAMORPHIC Photogrammetric, Image analysis and  
image processing.**

**APPRECIATIONS RECEIVED:**

**Special Interviews for T.V Programme:**

In future, Global tectonics, Earthquake in South India, Petroleum deposits in India and Pralaya concept, by Journalism AVRC Mysore University 1999-2000 to **Chandana TV- Dooradarshan, ZEE News channel, Cauvery News, Asia Net, Feb,2001.**

All India Radio Programme in the Mysore AkashVani Mysore radio station Scientific Programme on **Talakadu Sand Dune** origin July 11 2008.

Public awareness about **Sand Mining** in the Mysore District News Paper Scientific Environmental Statement 16 July 2008.

**SPECIAL LECTURES DELIVERED:**

Award lecture on **Kollegal Shear Zone**, Biligirirangan Hill ranges, Karnataka, India, 1998, at Dept of Geology, Bangalore University.

A lecture on **Earthquakes of South India and Karnataka** in Mandya district Office- 1997.

A field excursion and lecture on **Earth quakes studies in Coorg District**, Karnataka, 2001.

**TV Interview and Phone in Programme in City media of Mysore and Bangalore in UMN and CITY cable.**

#### **MEMBERSHIP OF PROFESSIONAL BODIES**

#### **REFEREE TO THE FOLLOWING JOURNALS**

**CONTRIBUTION TO: Editorial Boards and Scientific Journals:**

#### **JOURNAL OF INDIAN MINERALOGIST (MINERALOGICAL SOCIETY OF INDIA, MYSORE)**

- Since from the 20 years working for this scientific journal as a executive member of the this international publication
- As a Treasurer 9 years working and improving the membership for the publications
- Improving in all respect to this journal actively involved in the publication
- Continuously every year organizing the national seminars and conventions of the society in all over the India.

#### **INDIAN SOCIETY OF GEOMATICS, AHAMADABAD (MYSORE CHAPTER-2003)**

- Since from the 7 years working for the Mysore Chapter, **Chairman and as life member** of the this society
- As a **member and Chairman** of the society working and improving the membership
- Actively involved in all respect of the Mysore Chapter and Society of Geomatics
- conducted the work shops in the name of the Society and the Mysore Chapter



**JOURNAL OF APPLIED GEOCHEMISTRY  
(SOCIETY OF APPLIED GEOCHEMISTRY,  
HYDERABAD)**

- Since from the year 2008-2011 Editorial **Board Member** of the Society.
- Working and improving the membership for the publications and the Society.
- Conducted the workshops in the name of the Society.

**DEPARTMENT OF STUDIES IN GEOLOGY ALUMNI ASSOCIATION  
(DOSGAA)(DOS in Geology University of Mysore,  
Manasagangotri, Mysore)**

-Since from the year 2008 **President and founder member** of **DOSGAA**.-Under this ACADEMIC organization.

**CONSULTING SERVICES:**

- **Petrological Study and identification of different rocks in Granite industry**
- **Ground Water exploration in hard rock terrains.**
- **GPS survey**
- **Total station survey**
- **Field investigations**

**COMMUNITY SERVICES:**

- **Motivating the Earth Science and Environmental hazards in the publics , School children , colleges**
- **Giving the awareness on Remote Sensing and GIS, GPS applications.**
- **Inspiring the Earth Science Students community to join the different NGOs and GOS**

