

## Bio-Data

### 1. Personal profile

**Name** : **Dr. M. Raghavendra Goutham**  
**Father's Name** : M.Ranganatha Goutham  
**Date of Birth** : 20<sup>th</sup> April 1972.  
**Research Experience** : 19 years  
**Main Research interests** : Palaeomagnetism and Rock magnetism & Geochemistry  
**Present Position** : Lecturer in Geology (Asst. Professor)  
**Address for Communication**

#### Permanent

Mannava – Post  
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#### Present

Department of Geology  
 Government College [A]  
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**Languages Known** : English, Telugu and Hindi  
**Extra Curricular Activities** : N.C.C. 'C' Certificate

### 2. Education

- **B.Sc.**, (1989-'92) Geology, Mathematics, Physics. P.B.N. College, Nidubrolu – **Nagarjuna University**, Guntur, A.P., India. Secured **64%** of marks on aggregate and **83%** in Geology
- **M.Sc., Geology** (1994-'96) **Sri Venkateswara University**, Tirupati, A.P., India. Secured **First class first** with **80%** of marks.
- **Ph.D.** in Geology on "Palaeomagnetism of Kurnool and Palnad formations and mafic dykes intruding the Archaeans"- **Sri Venkateswara University** - 2003.

### 3. Additional Qualification (s)

Qualified in **State Level Eligibility Test (SLET)** for Lecturer ship in Colleges/Universities, conducted by Andhra Pradesh College Service Commission – 1998 (**Accredited by UGC**).

### 4. Awards/Prizes

- **P.R.J. Naidu Gold Medal** for getting **University Top Rank in Geology** from **Sri Venkateswara University**, Tirupati for the year **1996**.
- **Third Best Presentation Award** in National Student Geological Congress held at Andhra University, Vizag, December 5<sup>th</sup> – 7<sup>th</sup>, 2001.
- Recipient of **DST Young Scientist** Project from Govt. of India- From 2005 to till date.
- Resource person for **Inter University Faculty Forum (IUFF)** in Geology - 2014
- Resource Person, **Geological Survey of India Training Institute, Hyderabad**
- **Commendation Award** from Government of Andhra Pradesh – **26 January 2021**

### Patent

Published a **patent** along with 2 colleagues from Comp Science department on **Weather Reporting Irrigation Control using IoT**.

Application No: 202041037355

Date of Publication: 25/09/2020

Published in the official journal of the patent office, Government of India, Journal No. 39/2020  
Dated 25/09/2020

### 5. Fellowship (s) received

- Junior Research Fellowship (JRF) from Department of Science and Technology (DST), Government of India, New Delhi during 1998 – 2001.
- Summer Research Fellowship from Indian Academy of Sciences, Bangalore during summer 2002. (Successfully completed at IIT Bombay)
- Summer Research Fellowship from Indian Academy of Sciences, Bangalore during summer 2003. (From TIFR and IIT Bombay)
- **Post-Doctoral Fellowship** from Indian Institute of Geomagnetism, Mumbai

### Administrative Experience:

- Member, Governing Body, Government College (Autonomous), Rajahmundry
- Member Secretary, Academic Council, Government College (A), Rajahmundry
- Coordinator: District Resource Centre, EG Dist since 2012
- Dean: Academic Affairs, Government College [A], Rajahmundry since 2017
- BOS Member (PG), Adikavi Nannaya University, Rajahmundry, 2012-14
- Chairman, UG Board of Studies, Adikavi Nannaya University, Rajahmundry 2012-14
- Member, UG Board of Studies, Adikavi Nannaya University, Rajahmundry since 2014-
- Member, UG Board of Studies, Sir CR Reddy Autonomous College, Eluru
- Member, UG Board of Studies, MR Autonomous College, Vizianagaram

### 6. Research Papers Published/ Communicated

#### 2006

1. **Goutham, M.R.**, Raghubabu, K., Prasad, C.V.R.K., Subbarao, K.V. and Damodara Reddy. V. (2006). A Neoproterozoic Geomagnetic Field Reversal from Kurnool Group, India and implications for stratigraphic correlation and formation of Gondwana. *Jour. Geol. Soc. India*, v. 67, pp. 221-233.
2. **Goutham, MR.** (2006) Palaeomagnetism of Cuddapah Basin. Geol. Surv. Ind. Training Institute's Pre-field presentations and Guidebook of Field Workshop on "Cuddapah Basin – A Revisit" (Ed: Dr.G.Lakshminarayana), pp.75-84.

#### 2008

3. **Goutham, M.R.**, Patil, S.K., Seena, M.S. and Anoop, E.T.(2008) Preliminary Rock and Palaeomagnetic Results from the (Neoproterozoic) Bhima Basin, India, *Jour. Ind. Geophy. Union*, v.12, No.2, pp.63- 68
4. **Goutham, M.R.**, Prasad C.V.R.K., Subbarao K.V., and Damodara Reddy, V (2008) Rock Magnetic properties of Proterozoic mafic dykes from the southern margin of Cuddapah Basin. *Jour. Ind. Geophy. Union*, v.12, No.3, pp.123-130

#### 2010

5. **Goutham, M.R.**, Sandhya, R, Madhusudhan Rao, B, Patil, S.K. and Murthy, B.V.S, (2010).

Rock magnetic and Palaeomagnetic study of the Archaean Granites from Hyderabad, India, *Jour. Ind. Geophy. Union*, v.14, No.1, pp.51-58.

### 2011

6. **Goutham, M.R.**, Subbarao K.V., Prasad C.V.R.K., Walsh, J.N. and Damodara Reddy, V (2011). Proterozoic mafic dykes from south of the southern margin of the Cuddapah Basin, India: Part 1- Geochemistry and Petrogenesis, *In: Dyke Swarms: Keys for Geodynamic Interpretation* (Ed. Srivastava, RK), Springer, Heidelberg, DOI 10.1007/978-3-642-12496-9\_4
7. **Goutham, M.R.**, Subbarao, K.V., Prasad, C.V.R.K., Piper, J.D.A. and Miggins, D.P. (2011), Proterozoic mafic dykes from south of the southern margin of the Cuddapah Basin, India: Part 2 - palaeomagnetism and  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology, *In: Dyke Swarms: Keys for Geodynamic Interpretation* (Ed. Srivastava, RK), Springer, Heidelberg, DOI 10.1007/978-3-642-12496-9\_5

### 2016

8. **Goutham, M.R.**, Patil, S.K., Sandhya, R, Madhusudhan Rao, B, and Murthy, B.V.S, (2011) Magnetic Fabric and rock magnetic properties of the Archaean Granites from part of the Hyderabad Granitic Region, Eastern Dharwar Craton, India. *Jour. Ind. Geophy. Union*, v.20, pp-33-39
9. **Goutham, M.R.**, Prasad, C.V.R.K. and Subbarao, K.V. (2016). Magnetostratigraphy of the Cuddapah Supergroup (*submitted to Jour. Asian Earth Sci.*)
10. **Goutham, M.R.**, Patil, S.K., Sandhya, R, Madhusudhan Rao, B, and Murthy, B.V.S, (2010). Low field AMS and magnetic results of the Archaean Granites from Hyderabad Granitic Region, Eastern Dharwar Craton, India. (To be communicated to Current Science)
11. **Goutham, M.R.** and Patil, S.K (2009). Rockmagnetic, Palaeomagnetic and Low Field AMS results of Alkali Syenites from the Cuddapah Basin (Under preparation - to Current Science)

### **7. Papers presented at National Conferences**

1. "New Palaeomagnetic Results from Kurnool and Palnad Formations and mafic dykes intruding the Archaean", National Seminar on "Mineral Based Industries, Present Status and Future Prospects" Andhra University, Vizag, December 5<sup>th</sup>-7<sup>th</sup>, 2001 Abstracts Volume, pp.116-117
2. "Palaeomagnetism of Kurnool and Palnad Formations", Annual General meeting of the Geological Society of India held at N.G.R.I. Hyderabad, 2001.
3. "Palaeomagnetism,  $^{40}\text{Ar}/^{39}\text{Ar}$  Geochronology and Geochemistry of mafic dykes from the southern margin of Cuddapah Basin" Annual General Meeting of the Geological Society of India held at NCAOR, Vasco, Goa, Nov. 2003. Abs. vol
4. "Magnetostratigraphy of Cuddapah Supergroup" in the National Seminar on 'Recent Trends in Earth Sciences' held at the Department of Geology, Sri Venkateswara University, Tirupati, April 2-4, 2004. Abstracts Volume, p. 19.
5. "Palaeomagnetism of Cuddapah Basin" in the field Workshop on "Cuddapah Basin-A Revisit" organised by Geological Survey of India Training Institute between 16<sup>th</sup> Jan and 24<sup>th</sup> Jan 2006.

### **IUGG (2003), Sapporo, Japan**

A Neoproterozoic Reversal from India: Stratigraphic Significance; Formation of Gondwana, GAI.06/04A/A10-002, Abstracts Volume.

## 8. Posters

“Rock magnetic and geochemical properties of some mafic dykes from the southern margin of the Cuddapah Basin” at mid term appraisal meeting of Department of Science & Technology at Tanjavur, Tamil Nadu between 31<sup>st</sup> Dec 1999- 2<sup>nd</sup> Jan 2000.

### **International Geological Congress 2004, Florence, Italy.**

Palaeomagnetism, Geochemistry and <sup>40</sup>Ar/<sup>39</sup>Ar Geochronology of mafic dykes from the southern margin of the Cuddapah Basin, South India. Abs. Vol. 2, pp. 1087.

## 9. Technical knowledge

Knowledge in working with Computer through Windows and DOS operating systems and Geological software like Spinwin, Geosoft, Pmagic etc., and other software like MS Office, Grapher, Corel Draw etc.

## 10. Seminars/workshops/meetings/ Training Programmes attended

- Mid term appraisal meeting of Department of Science & Technology at Tanjavur, Tamil Nadu between 31<sup>st</sup> Dec 1999- 2<sup>nd</sup> Jan 2000.
- National Seminar on “Mineral Resources of Cuddapah District”- Pulivendla, Cuddapah District, 2002.
- Training Course on “Theory and Practice of ICP Spectrometry” between 3<sup>rd</sup> – 5<sup>th</sup> Feb 2003 at NIO, Goa.
- Training course on “Interpretation of Geomorphic features from toposheets and aerial photos, between 5<sup>th</sup> – 8<sup>th</sup> May 2003 at University of Pune, Pune.
- DST Sponsored Winter School Mapping Training in Sedimentary terrains, Kurnool area, Cuddapah Basin, Andhra Pradesh, organized by Geological Survey of India Training Institute between 3<sup>rd</sup> Jan 2005 and 29<sup>th</sup> Jan 2005.
- DST Sponsored field Workshop on “Cuddapah Basin-A Revisit” organised by Geological Survey of India Training Institute between 16<sup>th</sup> Jan and 24<sup>th</sup> Jan 2006.

## 11. Membership in Professional bodies

- Member, Geological Society of India (FGS), Bengaluru
- Life Member, Indian Geophysical Union, Hyderabad (FIGU)
- Life Member, Society for Earth Scientists, India (FSES), Lucknow
- Member, Indian Science Congress Association, (MISCA)
- Life Member, Vijnana Bharati (VIBHA), Govt. of India

## 12. Research highlights

### **1. Ph.D.Title: Palaeomagnetism of Kurnool and Palnad Formations and Mafic Dykes intruding the Archaeans.**

Research highlights includes identification of mixed magnetic polarity (Reversed and Normal) in the Banganapalli Quartzite of the Neoproterozoic Kurnool Group and suggested that it has deposited when Earth’s magnetic field was going through a process

of reversal. Based on similar polarity in Vindhyan in central India, a stratigraphic correlation has been attempted which suggests slightly older age for Kurnool Group of formations (*Goutham et al. 2006, JGSI*). This new palaeomagnetic results points that the earlier classic correlation made between these two (Kurnool and Vindhyan Formations) based on the presence of diamondiferous horizons in the both the basins may not be reliable as the source of diamonds in both the basins is not similar.

## **2. DST Young Scientist Project: Palaeomagnetism of Bhima and Kaladgi Basins**

To confirm the observed mixed magnetic polarity in the Kurnool Group, palaeomagnetic work on Bhima and Kaladgi Basins, which are time equivalents of Kurnool Group and Cuddapah Supergroup respectively, was taken up through Young Scientist Project funded by DST (SR/FTP ES – 04/2004). However, these formations seem to be remagnetized by Deccan Lava Flows (*Goutham et al. 2008, JIGU*). Apart from the palaeomagnetic and rockmagnetic work on the Proterozoic sedimentary formations, the Hyderabad Granitic Region was studied for their palaeomagnetic, rockmagnetic and low field anisotropy of magnetic susceptibility characters and found that there are at least two generations of granites in the vicinity (*Goutham et al. 2009, JIGU*).

## **3. Post Doctoral Research**

Worked on the palaeomagnetic, rockmagnetic and low field AMS characters of mafic intrusives of the Singhbhum Craton at the Dr. K.S.Krishnan Geomagnetic Research Laboratory (Dr.KSKGRL), a regional centre of the Indian Institute of Geomagnetism (IIG), Allahabad.

## **13. Research Experience**

- a) As part of my Ph.D and post- Ph.D, I had an opportunity to work with Rockmagnetism groups of IIT Bombay and TIFR Mumbai and learnt state of –the art techniques in the field of Rockmagnetism. During my stay in Bombay, I interacted with the French Palaeomagnetism Group headed by Prof. Vincent Courtillot of University of Paris.
- b) I underwent **advanced geological field mapping** training organized by Geological Survey of India Training Institute for one month and learnt advanced geological mapping techniques.
- c) I am a team member in Geophysical Investigations carried out on the University of Hyderabad Campus for **Water harvesting and recharge** measures and closely interacted with Groundwater Replenishment Group of National Geophysical Research Institute (NGRI) and learnt the techniques of Multi-electrode resistivity and Vertical Electrical Sounding Surveys and prepared the hydrogeological map of the UoH
  - Overall, with my experience in the different fields Earth Sciences such as Petrology, Rockmagnetism, Geochemistry, Hydrogeology and Field geology, I am confident that I can deal with any kind of project if given an opportunity.

**Current Research:** A Research Proposal was submitted to UGC on “Rockmagnetic and low field Anisotropy of Magnetic Susceptibility (AMS) studies on Rajahmundry Traps along Duddukuru-Pangidi (Gowripatnam) Section to infer magma flow direction” (Project Submission No: ROMRP-SERO-GEOL-2015-16-42017)

*Currently guiding a Research Scholar on the topic “Groundwater Resource Management studies in Crystalline and Gondwana Formations in upland tract of West Godavari District, Andhra Pradesh and its Socio-Economic implications”*