

## **Dr. P. RAMESHCHANDRA PHANI**

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### **PROFILE ABSTRACT:**

He has over fifteen (15) years of experience in the domain of green & brown field mineral exploration & exploitation including geological mapping, remote sensing & GIS, sampling & geoscientific data interpretation, quality & quantity control, quarry/open-pit mine management, reserve estimation and geological documentation for variety of mineral commodities.

He started his career as a University level Lecturer in Geology at Kothagudem School of Mines (Kakatiya University, India) to teach for for M.Sc. (Geology) and B.E. (Mining) curricula in 1995. Later he worked in different capacities in reputed organizations, viz., National Remote Sensing Centre (NRSA), Dept of Space, Government of India, Rio Tinto Exploration India Ltd, United Arabian Mining Company, Riyadh (KSA), Saint Gobain Glass India Ltd, in exploration domain. Prior to joining Infotech Enterprises Limited, he led a team of 20 geologists as a Manager (Exploration) in Baldota Group, Hospet for green field exploration projects for diamond, gold & allied minerals in Andhra Pradesh, India.

He is based at the Infotech office, Uppal in Hyderabad, India.

### **ACADEMIC QUALIFICATIONS:**

M. Sc. (Geology) from Osmania University, Hyderabad in 1994.  
M.Tech. (Applied Geology) from Indian Institute of Technology, Kharagpur, 1998.  
Ph.D. in Geological Sciences, Garrington University, USA.  
Pursuing Ph.D. (Diamond Exploration) in Osmania University, Hyderabad.

### **COMPUTER KNOWLEDGE:**

Operating systems: Windows 95/NT/2000.  
GIS: Map Info 10.5, Encom Discover, Surfer, ERDAS 9.5.

### **KEY SKILLS:**

- Regional & prospect scale geological Mapping in field as well as using remotely sensed data.
- Selection of areas for mineral exploration & preparation of applications as per MMRD (India), JORC codes.
- Extensive exploration experience for commodities like kimberlite/diamond, gold, iron ore, base metals and industrial minerals.

- Planning, organizing and execution of exploration programs including sampling, analysis, interpretation and technical documentation for further work for variety of mineral commodities.
- Geoscientific research including integration of geochemical and geophysical data with geological information leading to discovery of a mineralized zones.
- Remote Sensing & GIS knowledge to manage an exploration programme.
- Drill logging, correlation, computerized drill log construction and 3D visualization.
- Preparation of full scale geological reports.
- Training & managing geologists for field work, mapping, site selection etc.

### **PROFESSIONAL EXPERIENCE:**

#### **Kimberlite/Diamond Exploration:**

Worked extensively in different states of India for diamond exploration and was a successful team member in discovering several new kimberlite pipes in cratonic areas of Indian subcontinent, including Bunder Prospect, Madhya Pradesh. Elaborative experience in geological mapping, geochemical sampling and interpretation, drill target identification, drill site (diamond core, RAB, RC etc) management, lithologging, integration of collateral data for anomaly identification. Logged >6000 metres of kimberlite core. Extensively used geological, geochemical and geophysical methods for exploration. Managed a large team of geologists spread in Andhra Pradesh region spread in different field camps. Discovered two new kimberlite pipes in Eastern Dharwar Craton.

#### **Ferrous & non-ferrous metal Exploration:**

Worked in Arabian-Nubian shield for base, precious metal exploration as a Senior Geologist. Identified an unreported iron ore deposit associated with ophiolite belt in Halaban terrain. Working in conjunction with geophysicists for drill target delineation. Also worked for ferrochrome ore deposits viz., iron ore, chromite and chromitite. Located an ancient semiprocessed iron ore dump of 53 MT in Bir Tuluha, Bisha and Al Bahah provinces, which can readily be processed for metal extraction (Fe 62%) using remote sensing techniques and ASTER data. Provided geological inputs for bankable feasibility report of Al Khnaiguiyah Pb-Zn deposit.

#### **Industrial Minerals:**

Managed quality & quantity of natural glass grade raw materials produced from various mines in India. Elaborative experience in maintenance and management of daily productions of silica sand, calcite, dolomite and limestone resources as per plant specifications. Developed a scientific system to manage silica sand resources of Nellore Dt., Andhra Pradesh and implemented break-through ideas to improve the raw material quality.

#### **Remote Sensing & GIS:**

Generation of Groundwater Prospects Maps on 1:50000 scale for different states of India with the aid of IRS 1C/D LISS III FCC data interpretation and GIS (ARC/INFO 7.2.1 and ERDAS 8.3 & 8.4) under RGNDWM Project, which involves interpretation of remotely sensed data for

delineation of geology, geomorphology, structures, hydrology of the terrain followed up by ground truth. Carried out extensive field work for collection of technical ground truth data in different states of India that were used as base information in many government departments for sustainable development of the society. Quality checking of similar maps (hard & soft copies) prepared by different affiliated entrepreneur organizations.

Environmental Impact Assessment of areas affected by limestone mining in Narayan Srovar Sanctuary area, Gujarat using remote sensing (IRS 1C LISS3) & GIS techniques.

#### **ADDITIONAL FIELD EXPERIENCE:**

- Visited oil/gas well sites of ONGC Ltd. in various locations in India for sample collection and to understand the problems faced in exploration and drilling stages (1998).
- Undergone field and laboratory training for one month, in coal quality identification, geophysical well-logging, basin analysis, preparation of isopach, isochore maps, coal seam characteristics & seam correlation. Visited opencast / underground coalmines at Singareni Collieries Co. Limited, Kothagudem, Andhra Pradesh, India (1994).
- Undergone training for two weeks in the Lead Mines located in Guntur district of Andhra Pradesh, India in (1991).

#### **ACADEMIC & PROFESSIONAL ATTAINMENTS:**

- Recipient of 'Singareni Collieries Co. Ltd., Gold Medal' for securing First Rank in M.Sc., (Geology) in the Osmania University. Recipient of 'Prof. M.P.Rao Memorial Prize' for securing First Rank in B.Sc.(Geology).
- Won the 'Best Field Report Prize" during B.Sc.
- Qualified 'NET-1995' of Andhra Pradesh College Service Commission for Lecturership in Indian Universities and Colleges.
- Rio Tinto Chief Executive's Safety/HSEC Awards, Australasia Region, 2003, 2004 & 2005.
- Was a team member in the discovery of several new world class mineable kimberlite pipes in Rio Tinto in cratonic areas of India including Bunder Prospect.
- Made and implemented break-through suggestions for quality improvement/mineral processing of natural glass-grade raw material and have been awarded Best Idea Award 2008 in Saint Gobain Glass India Ltd.
- Secured highest marks (82%) in Pre-Ph.D. Course work examination May 2012, Osmania University, Hyderabad.

#### **SCIENTIFIC ASSOCIATESHIPS:**

- Indian Geological Congress, Rourkee, India.
- Gondwana Geological Society, Nagpur, India.
- Indian Academy of Geosciences, Hyderabad, India
- Diamond Graders' Association of AP., Hyderabad, India.

- Fellow of Society of Earth Scientists, Lucknow, India.
- The Mining, Geological & Metallurgical Institute of India, Kolkota, India.
- Mineralogical Society of India, Mysore, India.

### **CONFERENCES/ TRAININGS ATTENDED:**

- International Conference of Earth and Environmental Sciences, Environmental management and policies. 19-22, March, 2014, Chennai, India.
- 3<sup>rd</sup> Annual Conference on Mining Technology in India, CHALLENGES AND Opportunities: Strategies and Solutions, April 28-29, 2014, New Delhi, India.
- MinExpo International 2012 held at Las Vegas, USA FROM 24<sup>th</sup> to 26<sup>th</sup> September 2012.
- Field training on high resolution geological mapping & section Measurements in BIF terrain of Gadag Gold Field, July 2011.
- *In-house* training on petrographic studies for mineral exploration, MSPL Ltd., Hospet, June 2010.
- International Symposium on 'Role of Applied Geochemistry in Mineral Exploration' at NGRI, Hyderabad, November 2009.
- GPS Applications & Augmentation, IETE, Hyderabad, India, 2007.
- Modern Trends in GIS, Survey of India, Hyderabad, India.2006.
- Diamond grading & Appraisal, Ministry of Small Scale Industries, Hyderabad, India, 2005.
- Shawsett First Aid Safety, Rio Tinto India, 2003.
- Digital Photogrammetry, JNTU, Hyderabad, India.2002.

### **SCIENTIFIC PUBLICATIONS:**

International: 10

Articles: 2 (Open access online)

### **List of Publications of P. Ramesh Chandra Phani**

#### **I. Research papers**

**Phani, P.R.** (2014a) **Evaluation of glass-grade silica sand resources, Nellore District, Andhra Pradesh, India using GIS.** IOSR Journal of Applied Geology and Geophysics (IOSR-JAGG), Vol. 2 (4), July- August, 2014, pp.18-25. <http://iosrjournals.org/iosr-jagg/papers/vol2-issue4/C0241825.pdf>

**Phani, P.R.C.** (2014b) **Mineral Resources of Telangana State, India: The Way Forward.** International Journal of Innovative Research in Science, Engineering and Technology, Vol.3 (8), August, 2014. pp.15450-15459. [http://www.ijirset.com/upload/2014/august/52\\_Mineral.pdf](http://www.ijirset.com/upload/2014/august/52_Mineral.pdf)

**Phani, P.R.C.** (2014c). **Morphometry and its implications to stream sediment sampling: A study on Wajrakarur Kimberlite Field, Penna river basin, Anantapur district, Andhra Pradesh, India.**

International Journal of Geomatics and Geosciences, Vol. 5(1), 2014, pp.74-90.  
<http://www.ipublishing.co.in/jggsarticles/volfive/EIJGGS5008.pdf>

**Phani, P.R.C. (2014d) Sedimentological studies and palaeoenvironment of Lower Gondwana strata, North of GKOC Mine, Kothagudem Coalfields, Telangana, India.** International Journal of Advancement in Earth and Environmental Sciences, Vol. 2 (2), 2014, pp.31 -38.  
<http://www.irosss.org/ojs/index.php/IJAEES/article/view/353/107>

**Phani, P.R.C. (2014e) A GIS based correlation between lineaments and Gold occurrences of Ramagiri - Penakacherla Schist Belt, Eastern Dharwar Craton, India.** International Journal of Geology, Earth & Environmental Sciences, Vol. 4 (3) September-December, 2014, pp. 259-267.  
<http://www.cibtech.org/J-GEOLOGY-EARTH-ENVIRONMENT/PUBLICATIONS/2014/Vol 4 No 3/025-JGEE-007-RAMESH-LINEAMENTS-CRATON-FINAL.pdf>

**Phani, P.R.C, Jayaram, T., Jayalakshmi, G.. (2014f) An analysis of lineaments and mineral occurrences of Veligallu Schist belt, Eastern Dharwar Craton, India using GIS.** Journal of Multidisciplinary Engineering Science and Technology, Vol. 1 Issue 5, December – 2014, pp. 198- 204.  
<http://www.jmest.org/wp-content/uploads/JMESTN42350230.pdf>

**Phani, P.R.C. (2014g) Glass -grade calcite resources, Borra, Vizianagaram Dt., Andhra Pradesh.** Advances in Applied Science Research, Pelagia Research library, 2014, 5(6), pp. 213-217.  
<http://pelagiaresearchlibrary.com/advances-in-applied-science/vol5-iss6/AASR-2014-5-6-213-217.pdf>

Rathore, I. S. and **Phani, P.R.C. (2015a) Field data capture in Exploration and Mining - Digital way.** International Journal of Science and Research, Volume 4 Issue 2, February 2015, pp.2129- 2132.  
<http://www.ijsr.net/archive/v4i2/SUB151727.pdf>

**Phani, P.R.C. (2015b) Serpentinized Peridotites of Bi'r Tuluah Ophiolite Complex, Saudi Arabia- Some geological observations and economic perspective.** Pelagia Research Library Advances in Applied Science Research, 2015, 6(3), pp.149-156.  
<http://pelagiaresearchlibrary.com/advances-in-applied-science/vol6-iss3/AASR-2015-6-3-149-156.pdf>

**Phani, P.R.C. (2015c) Area Selection for Diamond Exploration based on Geological and Morphostructural Set-up: Examples from Wajrakarur Kimberlite Field, India.** Journal of Advanced Chemical Sciences, 1(3), 2015, pp. 102-106.  
[http://jacsdirectory.com/journal-of-advanced-chemical-sciences/admin/issues/20150526042757\\_1-3-08%20JACS2015043.pdf](http://jacsdirectory.com/journal-of-advanced-chemical-sciences/admin/issues/20150526042757_1-3-08%20JACS2015043.pdf)

### **In press**

**Phani, P.R.C. (2015b) Geochemical studies around Lattavaram Kimberlite Cluster, Eastern Dharwar Craton, India: Spatial and Statistical Analyses.** Accepted by Journal of Advanced Chemical Sciences for July 2015 issue.

## **II. Presentations in Conferences**

### **International**

Phani, P.R.C. and Balamurugan, S., (2014) **Environmental Impact of granite mining in and around Hyderabad City- A case study using GIS**. International Conference of Environmental & Earth Sciences (ICEES), Chennai, 19-22 March, 2014.

### **National**

**Phani, P.R.C., Rathore, I.S. and Balamurugan, S. (2015a). Stream sediment geochemistry as an Exploration tool in Kimberlitic terrain: A study on Lattavaram Kimberlite Cluster, Anantapur Dt., Andhra Pradesh.** In: National Seminar on *Emerging Trends in Geosciences, Department of Geology, University College of Science, Osmania University, Hyderabad*, January 30-31, 2015.

**Phani, P.R.C. (2015b). An Overview of Mineral Resources of Telangana.** Keynote Address in *National Workshop on Prospects & Perspectives of Mineral Resources of Telangana State, India.* Department of Geology, Kakatiya University, Warangal. 30-31, March 2015

### **III. Articles**

**Phani, P.R.C. (2011a) Geological Excursion to Eparchaeon Unconformity at Namalagundu, Anantapur District, Andhra Pradesh, India.**  
[http://earthscienceindia.info/pdfupload/esi\\_geosites\\_1.pdf](http://earthscienceindia.info/pdfupload/esi_geosites_1.pdf)

**Phani, P.R.C. (2011b) Geological Excursion to Belum Caves & adjoining places, Kurnool District, Andhra Pradesh, India.** [http://earthscienceindia.info/pdfupload/esi\\_geosites\\_2.pdf](http://earthscienceindia.info/pdfupload/esi_geosites_2.pdf)

### **Summary as on 25.06.2015.**

<b>Sl. No.</b>	<b>Type</b>		<b>Status</b>	<b>No.</b>
1	Research Papers		Published (International- open Access peer-reviewed journals)	10
			In Press	1
2	Conferences	International	Oral presentation	1
			Participation	2*
	National	Oral presentaiton	2	
			Participation	3*
3	M.Tech. (Applied Geology) Thesis at IIT, Kharagpur on 'Deep-water Oxygenation and Organic Carbon Flux during Miocene: KG Basin'.		Unpublished	1

\*Not mentioned.



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