

LIFE PROFILE OF PROFESSOR O.P. VARMA

1. Name : VARMA OM PRAKASH

2. Date and Place of birth:

Oct. 10, 1924; borned at Rampur Manhyaran, Distt. Saharanpur (U.P.)

3. Designation, address, phone number and e-mail ID:

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4. Educational Qualifications:

Sl.No.	Year	Degree	Subjects	Institution/College	University/College
1.	1950	B.Sc.	PMG	Science College	BHU
2.	1952	M.Sc.	Geology	Science College	BHU
3.	1958	DIC	Mining Geology	Imperial College of Science & Technology	Imperial College of Science & Technology, London
4.	1958	Ph.D.	Mining Geology	Royal School of Mines	London University, London

Title of Ph.D. thesis: *Chromite Deposits of India*

Guide: Prof. D. Williams, Professor of Mining Geology & Head, Deptt. of Geology,
(Royal School of Mines) Imperial College of Science & Technology, London

5. Professional experience:

Sl.No.	From	To	Designation	Employee Details	Additional Information/ /Comments, if any
1.	1959	1962	Senior Lecturer	ISM, Dhanbad	First assignment on return to India
2.	Oct. 1962	Mar. 1965	Reader in App. Geol.	Rajasthan University	Founder Reader for M.Tech Applied Geology Course
3.	1965	Dec. 1984	Professor	ISM, Dhanbad	<ul style="list-style-type: none"> • Selection through UPSC • Head, Deptt. of Applied Geology 1979-1982 • Dean of Students • Editor, ISM News Letter
4.	1984	1985	Visiting Professor	University of Roorkee	Taught Mining Geology to a batch of officers from Geological Survey, Ethiopia.
5.	1998	2002	Principal Project Investigator by Invitation for a very major Pan-India Project, DST, Govt. of India (North-India)	Concurrent assignment from DST	Submitted two volumes of report, highly appreciated by the awardee agency (DST)
6.	1984	186	Mining Advisor, M/s Ferro Alloys Corporation based at Bhadrak (Odisha)	Additional assignment from FACOR	Could not continue due to academic work pressure
7.	1987	Till date	Editor (continuing)	Indian Geology Congress	Hony.
8.	1998	1999	President	Indian Geological Congress	
9.	2001	Continuing	Executive President & Hony. Editor	Indian Geology Congress based in Roorkee	Will continue till physically & mentally fit
10.	1988	1992	Hony. Editor	Institute of Geotectonics, Changsha, China	

- ❖ Always spurned offer of deputation/foreign assignment with remuneration, but travelled abroad as VIP/Visiting Academic several times.

Honours / Awards Conferred:

(a) Awards & Distinctions

In the discharge of his duties, he has always been guided by the rich traditions and academic excellence of the Institution, which he has served with singular devotion throughout his professional career. In recognition of his outstanding services, he was honoured by ISM and other bodies: -

- UGC's National Lecturer in Mining Geology (1977-78)
- Distinguished Academic Service Award (1987) from ISM
- Prestigious Basant Samman – 2007 from ISM
- Felicitations from MGMI, (Delhi chapter) in 2006 in recognition of valuable contributions to mining and mineral industry.
- President, Geology and Geography Section, ISCA, for the year, 1985-86.
- President, Indian Geological Congress for the Year 1998-1999.
- Life-Time Achievement Award from SAAEG (2010).
- “*Scroll of Honour*” of Life-Member of MGMI for 50 Years standing.
- Felicitations by the Organising Committee, 18th Convention of IGC, for having rendered monumental service with unmatched connectivity and continuity in the service of geosciences – no missing link at all for over 65 years.
- Received several honours while presiding over various events in the field of earth sciences – latest being at Pithoragarh, (Nov. 11&12, 2013) Bhubaneswar, (15th Feb. 2014) and ISM Dhanbad on 28th Feb. 2014.
- Invited special lectures, keynote addresses, Presidential addresses, popular lectures – requests for them still continue pouring in, when he is crossing 93.
- Two accepted contributions for oral presentation at the 35th igc, Cape Town, Aug. 27-Sept. 4, 2016.
- IME Journal Golden Jubilee Lifetime Achievement Award 2014
- Dr. Hari Narain Lifetime Achievement Award of IGU 2016.
- SGAT Lifetime Achievement Award 2016
- MGMI Dr. J. Coggin Brown Memorial (Gold) Medal (2017-18) for Geological Sciences

Foreign Travel, Fellowships, etc.

(i) During Professional tenure

He is, otherwise, very widely travelled person, both in India and abroad. His prestigious, foreign travels, both in-service and post-retirement period till date include:-

1. Nomination by INSA as a member of Indian delegation to the Int. Geochem. Congress, Moscow, July 20-25, 1971.
2. Visit to USSR as a visiting Professor under Cultural Exchange Programme, 1971-72.
3. Deputation by ISM to participate in the 26th Session of the International Geological Congress, Paris, July 7-17, 1980.
4. Three weeks study programme in mining geology in Royal School of Mines, London, and Colorado School of Mines, USA. - 1980
5. Fellowship Award, as a Visiting Professor in 1981, this time under National Science Foundation of USA.

(ii) Even after retirement his participation has been much sought in international programmes.

1. Visited Institute of Chinese Academy of Science, Changsha, China, in 1988 under invitation of the Chinese Academy of Sciences.
2. Travelled to Pakistan in 1992 to take part in GEOSAS-I.
3. Participated in GEOSAS-II, Colombo, Sri Lanka, in 1995.

4. Invited to participate in the 33rd Session of International Geological Congress, OSLO, Norway in 2008.
5. Participated in GEODEV, Dhaka, Oct. 26-31, 2009, organized by AGID, and delivered two lectures:
 - (i) Geosciences knowledge in enlarging vista in human health concerns in the coming times.
 - (ii) Role of women geoscientists in national planning and development programmes.
6. Invitation from Iran (2015), which couldn't be undertaken owing to old age restrictions.
7. Invitation for Geo Dev, March 14-17, 2019, Dhaka (Bangladesh) as a member of the Organising Committee – the only one member in this capacity from India.

6. Membership of Professional bodies

- Mining, Geological & Metallurgical Institute of India, Kolkata (1268 LM-1960-61)
- Geological Society of India, Bangalore
- Indian Geological Congress, Roorkee
- Indian Science Congress Association, Kolkata
- Association of Exploration Geophysicists, Hyderabad
- Indian Institute of Public Administration, New Delhi (IIPA)
- National Institute for Training in Industrial Engineering (NITIE)
- The Ramakrishna Mission Institute of Culture, Kolkata
- International Medical Geology Association (IMGA)
- Association of Geoscientists for International Development (AGID)
- 35th International Geological Congress (35igc)

7. Details of Outstanding Works in the Field of Geological Science & Related Disciplines

a) Outstanding Works

Significant contributions and achievement of Prof. OM PRAKASH VARMA, crossed 93 years' age, imbibe a rare career of an academician, grossly devoted to learning, teaching, training, research, servicing onsite on geological problems, mining geology in particular, besides advancing growth & development and spreading awareness of geosciences across the country with total & passionate commitment to the true ideals service-to-science. In his endeavours, he has initiated handful of programmes and fora of world-record inclusive of gathering and disseminating the latest knowledge among the actual users through well-designed and well-knit implementation of a series of four memorial lectures from the platform of Indian Geological Congress (IGC) at various centres in nation-wide presence.

Prof. O.P. Varma has been in the forefront in the sensitization of children and school boys and girls by offering various kinds of on-the-spot events and talent generation and spotting of talent from amongst the students in pipeline in the Indian geosciences faculties by holding out innovative programmes of essay-writing, debating competition, interactive discussions, etc.

With unmatched zeal and passion, he has been successful to congregate Indian geoscientists under umbrella of Indian Geological Congress, which he has nourished with unquestionable transparency and honesty, by now for over 25 years, forming part of his long and continued preoccupations to the cause of geosciences for over 65 years.

He is emotionally, pragmatically, and practically connected strongly to geoscience fraternity. Hereunder is brief statement of the professional contributions of the nominee devoted, amazingly, for unbroken service to geosciences for over six decades. The span of service may be divided into four phases for ready reckoning:

Phase I. Concerns education: learning, teaching, research and extending his expertise to mining & mineral sector industries of India, academies and scientific bodies & organizations, both domestic & foreign. Prof. Varma initiated Mining Geology teaching in India and spread the knowledge through invited lectures throughout the country and overseas. His researches on chromites, rare minerals, medicinal minerals, refractory minerals and other metallic minerals, through Ph.D./M.Sc. Tech scholars, are well documented in geological records.

Phase II. Post-retirement period devoted to teaching & research, DST's project investigation during 2000-2003, and side by side with total devotion broke inertia, which had riddled the Indian Geological Congress (IGC) until 1986.

Phase III. Whole-time pre-occupation in honorary capacity as a career academic in writing, vetting, editing & publication with high degree of prolificity.

Phase IV. Nourishing IGC since 1987, which earlier had been almost on informal base, holding only Biennial Conventions at the time. The Society over the last three decades has developed & diversified into several academic & scientific offshoots in a most systematic regularity, virtually in all areas of geosciences, summarized in 8 points given below:

- i. Regular organization of the biennial conventions and periodically other problem-based varied types of fora — workshops, conferences, symposia, seminars, colloquiums, etc., staggering in number by now
- ii. Publications, including biannual Journal, developed from newsletter initiated in 1986, and regularly published since, Vol. 10(1) being in hand, thematic volumes, special volumes, books, monographs, edited and compiled by the nominee. (list attached).
- iii. Conceived and introduced a series of four memorial lecture series towards awareness building efforts and to upgrade research in various fields of earth sciences and dissemination of results across India (See attached list).

- iv. Talent generation and interest inculcation in meritorious undergraduates and school students to study geosciences by offering activities such as debating competitions, on-the-spot essays, paintings, quizzes, etc.
- v. Awareness creation about geosciences and its societal applications, primarily through lectures and public involvement in IGC programmes (*Bhuvigyan Chaupals*), also through distribution of pamphlets and brochures both in Hindi & English.
- vi. Service to geosciences fraternity: Connecting fraternal friends to each other. “*There is no relation if not connected*”, he holds the motto.
- vii. Evolved dream plan to build IGC Complex. A sum of over Rs. 50.0 lakhs already collected (target at least Rs. 1.0 Crore), out-of the total corpus of over Rs. 1.0 crore mobilized by him single handedly, till date.
- viii. Developed a world-class, modern and greatly responsive IGC Secretariat with facilities of state-of-the-art publications for Society’s needs.

All these programmes for furthering the all-round status of IGC, conceived and implemented primarily by the nominee, including biannual Journal from the newsletter, first time in 1986.

To sum up, his simple religion throughout his professional career had been to worship ideas & tenets of geosciences and spread them in the public and school boys & girls and common masses of India. He brought the academics interface with the industry efficiently, transparently & honestly. Extremely regular and strict auditing of accounts of the society at three levels and in addition, regular meetings of the Executive Council as per bye-laws of the Society and timely elections of its office-bearers have been the exemplary traits of the Society, which the nominee has nurtured for over 30 years.

b) Impact of contributions in the field of geological sciences, in particular

Prof. O.P. Varma, the nominated candidate for the aforesaid award, has spent his lifetime in serving his country and the cause of geological sciences from the beginning of his career, embracing learning, teaching and research and then totally in publication, as Hony. Editor, President, & now Executive President in S & T management matters of Ind. Geol. Congress and aware creation for the benefit of geosciences in school-boys & girls and the Indian masses — the IGC being ultimate to him since 1986, which marks a watershed for him in the growth & popularization of geosciences.

Here is a narrative of nominee’s (Prof. O.P. Varma) showing exceptional dedication and devotion to professionalism in geosciences and total commitment to the cause of growth & development of geosciences for over six decades by now, amazingly, with no-diminishing vitality and alertness, while crossing 93 to 94 years of age in Oct. 2019. The achievements are real, all performed on the ground (this is no self-praise) by an

academic who receives virtually every day high sounding credentials from across the country & abroad for his selfless honorary service to sciences of the earth.

- Prof. O.P. Varma could be identified as a rare example among the holders of Ph.D. in Mining Geology from Royal School of Mines, London, as early as 1958 when jobs abroad were going a begging in the area of mineral exploration at very lucrative remunerations. With intense patriotic feeling and sense of service to his motherland, the nominee, having spurned lucrative jobs abroad, however, left London, unlike majority of Indian students of the time, next day after having received positive result of his Ph.D. Course of Studies to serve his Motherland and never wished to go back to serve in foreign lands, even on short-term deputation.
- On return to India, he found ideal place in the then-Indian School of Mines (ISM), Dhanbad, as Sr. Lecturer, to engage himself in broadening and updating courses in Economic Geology and introducing courses afresh in Mining Geology, simultaneously setting up first mining geology lab. in India with major emphasis on field techniques related to course structure. In 1962, he shifted to Rajasthan University (RU) as Founder Reader in Applied Geology, and after a brief stint of about 2½ years in the post-graduate department of geology of RU located at Udaipur and nurturing the newly-started M.Tech Applied Geology Course with necessary courses, lab. & practical training programme, he came back to ISM as Professor of Mining Geology in 1965, as the ever youngest Professor in geosciences in India (see item No. 6).

He continued to identify himself unabated as a singular, first time, initiator of many geoscientific programmes in India, such as M. Tech courses in Exploration Geology, Engineering Geology & M. Phil during his headship; these courses still bear the imprints of his pioneering contributions to the development of geosciences in India.

- A very special credit goes to him for introducing, first time in India, the **M. Tech. Course in Mineral Exploration in ISM from the beginning of 1976-77 Session.**
- He is also recognized as initiator of the first Executive Development Programme in ISM on “*Mineral Economics*”, and in all possibility the organiser of the largest number of UGC-sponsored programmes of training on “*Ore microscopic studies & its industrial applications*” year after year. These short-term courses were so popular that even for the year of his retirement, the UGC granted the project for 1984-85 Session.
- Concurrently, Prof. Varma created a very intimate liaison with the industrial & scientific departments concerned with geological investigations and mineral & mining industry for the good of his students for employment and better training. Success came to his door and he deputed his students for project studies & practical training programmes at major mining centres and field camps of GSI, IBM, MEC, AMD and what not to inculcate in them the latest technologies in mining geology & mineral exploration. As a result, they have occupied top-notch positions both in academies & the mineral industry.
- He has been a role model for others to introduce advanced courses in mineral exploration in other universities too, the second one being at Vikram University, Ujjain, that he inaugurated; Applied Geology Dept. in Dibrugarh University has been faithfully nourished by him for more than a decade. Prof. Varma is the sole proponent to get the Post-Graduate Geology Courses in the Rajiv Gandhi University, Itanagar started since 2017.

- His tale of start-up of discipline of medical geology with inroads into Rasa Shastra (Ayurveda) is a unique contribution to revolutionise the use of medical minerals in the traditional systems of medicine, Bhasma drugs in particular. Ever since he has strived to modernise Rasa Shastra by organising various fora and delivering special lectures at different centres of teaching of these courses in the broad area of Ayurveda, Yunani and Siddha – the trend set up by him moves forward steadily.
- He is pioneer to starting up the need of empowerment and recognition of importance of entry of female students in geosciences courses.
 - In his pioneering efforts to popularize earth sciences among masses, he reached out with a number of suitable programmes and awards to the winners among the participating school boys & girls. Three to four such programmes were implemented during 2011, 2012 & 2013. Plans are on the anvil to offer such awareness programmes in 2014. To widen the scope of awareness building, he moved to common people by arranging lectures in the local languages. The first lecture in this series, organized in Hindi at Pithoragarh on the 5th April, 2013, was overwhelmingly well received by the local citizens. Its report has appeared in IGC Journal, Vol. 4(2). Besides these efforts, Prof. Varma has brought out a social awareness program on `Green Earth` by building waste disposal enclosures, fixing hoardings and display boards, distributing brochures/pamphlets and organizing thematic drawing competitions in various schools and colleges in Roorkee and other towns.
- Prof. Varma should be credited for conceiving, planning and implementation of the rarest programme on Pan India Debating Competition across India, four Editions of which have been already implemented and report published. The 5th Edition for the western Indian Universities is under process under the aegis of IGC.
- Teaching has been his forte and his accomplishments in teaching have been recognized by the UGC in the award of *National Lecturer in Mining Geology* for the year 1977-78 and two academic awards by ISM after his retirement (See biographical sketch of the nominee). Prof. Varma is undoubtedly the most dedicated and sincere teacher that I have come across in my student career. He is a very sought-for lecturer for extra-multerprogrammes in the Indian institutions and industry. It is no wonder that he was lately invited by NGRI to deliver Foundation Lecture and by Bangladesh Geological Society, SAAEG, Indian Science Congress, and BHU for keynote addresses, to name a few.
- Since 1986, the Professor Varma, has been nurturing the Indian Geological Congress (IGC), which had been prior to his taking over its affairs in total disarray. He accepted the challenge of revamping & revitalizing this society in 1986 and ever since he has with single-minded devotion and remarkable deftness advanced its overall working. As a result, today, it is an Institution of earth scientists of national and international renown.

Nominee's outstanding unparallel contributions to the development of geosciences have emerged from his total devotion and dedication to the affairs of Indian Geological Congress. He has been fully occupied as whole-time honorary functionary & Hony. Editor who manages all types of publications in a participatory set-up for the last 25 years. The modern well-organised, tastefully furnished and adequately equipped with up-to-date gadgets, the IGC's 6-room secretariat stands

in testimony to his monumental service to Earth Sciences and to the Indian geoscientists still with evergreen urge for creativity and innovations for ever-enlarging nation-wide activities, industry-academia interaction, & scientific collaboration. For over 25 years, he has consistently been widening the scope and creating newer avenues for the popularization of Earth science in India through IGC. His dedication is so intense that if sometimes there are no doors & windows, he walks through the wall to get on with his next mission.

- The nominee also personifies the pioneering spirit of starting up the need of empowerment and recognition of entry of females in geosciences courses in India.

His pioneering effort goes back to 1992, when he under the aegis of IGC initiated maiden start-up on empowerment of women geosciences by offering first event in developing & underdeveloped countries in the form of International Colloquium on ***“Role of women geoscientists in national planning & development programmes, Nov. 23-25, 1992 at INSA, New Delhi”***. Since this event brought out several enigmatic questions, the first stride was followed both in time & space at several fora and picked up by AGID also though Madam Afia Akhtar, the DG, Geol. Survey of Bangladesh, campaigning extensively in association with Prof. Varma.

- In India, Prof. Varma is a pioneer in the area of Medical Geology. Besides having organized three conferences, he has been closely associated with the Int. Medical Geology Association. At the 35thigc, which is to be held in Cape Town from Aug. 27-Sept. 4, 2016, he will be presenting his paper on *“Suggestive Pathways to Advance Development of Medical Geology”* – recognized as a commendable contribution by the Theme Champions.

→ He brought in a close academia-industry (ayurveda) liaison and had been instrumental in getting the National Panel on Bhasmas created and inevitable conceptual ability for new researchers in the field of Bhasmas with greater use of more & more minerals.

→ Prof. Varma is now destined to have a Chapter of Int. Med. Geol. Assoc. in India and has been pre-eminently planned Medical Geol. theme for the 36igc for approval which is scheduled to be held in India 2020. Prof. Varma is seized with all such related issues which he will discuss with his foreign counterparts at the 35thigc, held in Cape Town from Aug. 27-Sept. 4, 2016 wherein he was to present a paper on *“Suggestive Pathways to Advance Development of Medical Geology”*, recognized as a commendable contribution by the theme champions, but alas! His serious & sudden illness didn't make it possible.

Seventy years is by no means a small period in once life to engage himself in professional vocations as a dedicated scientist uninterruptedly — amazingly without break practicing bizarre facets of his expertise in scientific organizations & institutions & freely amidst Indian masses. His endeavours have since gained international recognitions. Well over 93 years of age, Prof. Varma is still very active in his professional activities that centre around the popularization of Earth Sciences through the various activities. The following two uptodate programmes stand testimony of the same:

→ Contributions to GeoSoc Conference to be held in Dhaka as foreign representative from India. Two contributions are made:

→ Seminar on “*Surface water and Ground water recourses and rejuvenation of water deficient ecosystems of northern and north-western region of India, also highlighting problems of linking rivers*” to commemorate six decades of committed services of Geol. Society of India to geosciences and geoscientific community” sometime during 2019. The event has been specifically assigned to the nominee for organisation.

8. List of Publications

List of scientific contributions of Prof. O.P. Varma for the period 2019-2011 only, (Excluding nearly 200 publications during professional career (1958-1986), is detailed.

Post-Retirement Articles/Papers/Special vols./Thematic vols./Editorials/Publication of IGC Journal, etc.

2019

Programmes on the anvil

- **Dr. B.P. Radhakrishna Commemorative Seminar on “*Surface water and ground water recourses and rejuvenation of water deficient ecosystems of northern and north-western region India (Uttar Pradesh, Uttarakhand, Himachal Pradesh, Haryana, Punjab and J & K), also highlighting problems of linking rivers in the region*” May 24-26, 2019 at Roorkee Local Centre, Institution of Engineers (India), IIT Roorkee Campus.**
- **Organisation of the 20th Foundation Lecture** of the IGC on “*Active tectonics & earthquake hazards in the Himalaya*”, by Dr. V.C. Thakur, May 6, 2019 at the Dept. of Geology, Mizoram University, Aizawl.
- Geosciences Awareness Workshop for academic, corporate, research institutions of the north-eastern states – planned for implementation towards the year end.
- Organisation of 16th Professor Jhingran Memorial Lecture on April 22/23, 2019 at WIHG, Dehradun by Dr. V.C. Tewari.

2018

→ **In hand for editing & publication:** Classical treatise, never before, on the rare topic “*Pyroclastic Rocks of India in Time and Space*” – Naresh Chandra Ghose, Former Professor & Head, Department of Geology, Patna University, PATNA.

Specially cover page, contents, about the author, editor’s comments are given as a composite **enclosure No. 1** at the end of nomination form to provide exclusive focus on the book for Committee Members to evaluate its exclusiveness of style, form and contents.

→ **Also Vol. 10(1)** of the Journal Ind. Geol. Cong. It’s to be brought out of press by June 2018 end with editorial on “*Taming the Climate Change II*” and a report on the 20th Convention, besides usual editor’s paraphernalia.

Journal Indian Geological Congress, Vol. 10(2), Dec. 2018.

- Editorial “*Taming the Climate Change-III*”, 1-2p.

- Proceedings of the National Seminar “*Management of Excavation Stability – MES-2018*” by MGMI, 59-70 p.
- Reporting on the “*106th Session of Indian Science Congress Association*”, held at Lovely Professional University, Phagwara (Punjab), 71-78 p. and
- Other contributions

2017

Edited & published IGC Journal, Vol. 9(1), 90 p.

- Editor writes: Taming the Climate Change, June, 2017, pp. 1-4.
- The Lost Eighth Continent – An American Expedition in Search of, pp. 79-81.
- Edited & published 19th Foundation Lecture of Indian Geological Congress, “*The 2.5 Ga Malanghand Copper Deposit of Central India*” – Prof. Deepankar Asthana, pp. 5-24. Report on the event, pp. 61-65.

Vol. 9(2), 176 p. – devoted to 20th Convention

- Preface, pp. 1-2
- Paper titled “*Rare Metals (Nb, Ta) and Rare Earths (REE) Ore Mineralization in the Sung Valley Carbonatite Complex, Meghalaya, India*” Jour. Ind. Geol. Cong., Vol. 9(2), December 2017, pp. 105-108. The paper has earned GSI Award of Rs. 5000/-, adjudged as the best research paper contributed to the 20th Convention.

2016

Edited & published IGC Journal, Vol. 8(1), 115 p. and 8(2), 55 p.

- 8(1)**
- India’s Water Crisis and Real Solution, June 2016, pp. 1-4.
 - Report on Memorial Lecture in Hindi (f)rh; iqi), pp. 49-53.
 - Drafted & published First Circular (IGC-2017) of 20th Convention, held Oct. 3-5, 2017 at Nagpur under the aegis of MECL, pp. 93-108.
- 8(2)**
- Editor Writes: *Swachha Bharat: The Most Precious National Bequeathment to Posterity*, pp. 1-4.

2015

Edited & published IGC Journal, Vol. 7(1), 124 p. and 7(2), 90 p.

- 7(1)**
- Emerging Frontiers of Earth System Sciences in Socio-Economic Development of Humans, Vol. 7 (1), pp. 1-4.
 - Former President Dr. A.P.J. Abdul Kalam – A Homage, pp. 5-8.
 - As Chief Guest delivered Inaugural Address “*Science-Applied Sciences-Technology-Engineering: Are these properly blended to advance. Make in India Technology?* ” at the Technology Day Celebration function, May, 2015, organized by the Institution of Engineers (IEI), Roorkee Centre. Gist on p. 116.

- Report on “*the Third Edition of Pan-India Debating Contest Inclusive only of Indian young Earth Scientists from North-Eastern Region*”, pp. 102-108.
 - “7th Professor Prem Bahadur Verma Memorial Lecture – a Transcript,” pp. 95-101. Lecture on “*In situ Stress, Pore Pressure and Geochemical Modeling: An Aid to Reservoir Delineation & Development*” – Rima Chatterjee, pp. 25-37.
 - Edited & published 18th Foundation Lecture of IGC “*Nuclear Power & Status of Uranium Mining in India*” – A.K. Sarangi, pp. 9-23.
- 7(2) – Mining in Heaven, Swarg Lok (**Loxlyid**): On Asteroids in Priority, Vol. 7(2) pp. 1-2.
- Report on the 4th Edition of Pan-India Debating Contest on Promoting communication skill in Post-graduate Earth System Sciences Students, pp. 55-66.

2014

Edited & published IGC Journal, Vol. 6(1), 99 p. and 6(2) 130 p.

- 6(1) – Sustainability of Mineral Resources conundrum, pp. 1-2.
- Report on 7th IGC Foundation Lecture: A Narrative, pp. 69-74.
- 6(2) – The blessed solution to our problems: Have we cared to know, pp. 1-2.
- Report on the First Phase of Pan-India Debating Competition for post-graduate students of Earth Sciences on “Global Warming: A Geologist’s perspective”, pp. 79-86.
 - 19th Convention of Indian Geological Congress – A report, pp. 87-103

2013

IGC Journal, Vol. 5(1), 238 p. and Vol. 5(2), 141 p.

- 2013. Revisiting ISM of Mid-Twentieth Century: Focus App. Geophysics, Golden Jubilee Souvenir, Applied Geophysics, Golden Batchmates (1959-1963), ISM Dhanbad, Feb, 2013, pp. 82-87.
 - 2013. Pre-workshop Volume “*Geology and geoheritage sites of Uttarakhand Himalaya with special reference to geoscientific development of the region*”, LSM College, Pithoragarh, Nov. 11 & 12, 2013, 106 p.
 - 2013. About the Workshop “*Geology and geoheritage sites of Uttarakhand Himalaya with special reference to geoscientific development of the region*”, Nov. 11 & 12, 2013, pp. 1-3.
 - 2013. Mineral potential of the Uttarakhand Himalaya and its exploration: Problems & Prospects, Pre-National Workshop Vol., “*Geology and geoheritage sites of Uttarakhand Himalaya with special reference to geoscientific development of the region*”, L.S.M. College Pithoragarh, Nov. 11 & 12, 2013, pp. 13-35.
- 5(1) – 2013 IGC’s Pre-18th Convention and Intl. Symp. Vol. on “*Mineral and mining in India - The way forward, inclusive of cooperative mineral-based industries in SAARC countries*” at M.P.C.S.T., Govt. of M.P., April 27-29, 2013, Bhopal, 133 p.
- 2013 Preface of IGC’s Pre-18th Convention, Ind. Geol. Cong. & Intl. Conf., April 27-29, 2013 Vol., pp. 1-3.
 - 2013. Recent innovations in earth sciences: Role of women-geoscientists in harnessing the emerging benefits, Pre-18th Convention Vol., pp 5-25, also In: Journ. Ind. Geol. Cong, Vol. 5 (1), pp 11-27.

- 5(2) - 2013, Editorial: Domestic mineral resources: The way forward to cooperative mineral-based industries between SAARC nations. Journ. Ind. Geol. Conf., Vol. 5 (1), 18th Convention Special Vol., pp. 1-3.
- 2013. Editorial: Chronology of metallogenies: Effective tool & technology for mineral deposit search, Journ. Ind. Geol. Cong., Vol. 5 (2), pp. 1-4.
- 2013. Report on “IGC’s 6TH PPBV memorial lecture flaming forth relevance of geostatistics in mineral deposit modeling for exploration and mining, delivered by B.C. Sarkar, at Bhubaneswar Journ. Ind. Geol. Cong., Vol. 5 (2), pp. 61-64.

2012

IGC Journal Vol. 4(1), 182 p. and Vol. 4 (2), 118 p.

- 4(1) - 2012. Journ. Ind. Geol. Congress, Vol. 4 (1), May 2012, 182 p., Editorial “Climate Change: Its Devastating Consequences, pp 1-3.
- 2012. Scientific, Economic and Sociodynamics of Green Earth, Journ. Ind. Geol. Cong., Vol. 4 (1), pp. 21-34.
- 2012. Several other reportages & snippets on various other events
- 2012. National Conference on “Green Earth with Focus, on the Himalaya Report & Recommendations, Journ. Ind. Geol. Cong., Vol. 4 (1), pp. 144-154.
- 2012. Journ. Ind. Geol. Cong., Vol. 4 (2), Nov. 2012, 118 p.
- 2012. Editorial “Science versus corruption”, Vol 4 (2), pp. 1-5.
- 2012. “18th Convention of IGC — A Biennial Marvel in Geosciences, Journ. Ind. Geol. Cong., Vol. 4 (2), pp. 55-81.
- 2012. IGC’s Maiden Lecture Programme in Hindi, Pithoragarh (Uttarakhand) - Salient Features, Journ. Ind. Geol. Cong., Vol. 4 (2), pp. 88-91.
- 2012. Edited Special Thematic Vol. on “Unconformity-riddled Cenozoic of the Foreland Basin and Elevation of the Himalaya” — V. Raiverman (Fig. 73 & Tables 99), 147 p.
- 2012. Book-Reviews, reports on various fora of other learned bodies & institutions.
- 4(2) - 2012. Proc. National Conference on “Green Earth with Focus On the Himalaya”, Oct. 19 & 19, 2012, WIHG, Dehradun, 112 p.
- 2012. Know thy Society’s Current Status, Pre-Conf. Vol., National Conference on “Green Earth with Focus on the Himalaya”, Oct. 18 & 19, 2012 at WIHG, Dehradun, pp. XVII-XXX.
- 2012. Scientific Economic and Sociodynamics of Green Earth, Pre-Conf. Vol., National Conf. “Green Earth”, organized by Ind. Geol. Cong. at WIHG, Dehradun, Oct. 18 & 19, 2012, pp. 1-10.

2011

Journal Vol. 3(1), 168 p. and Vol. 3(2), 140 p.

- 3(1) - Editor writes: Green Earth – Green India, pp. 1-6

- Edited and organized: 4th Professor Prem Bahadur Verma Memorial Lecture by Prof. Anil K. Gupta
- IGC's 15th Foundation Lecture by Dr. Naresh C. Mehrotra
- 14th Professor Jhingran Memorial Lecture by Dr. A. Hannah Rachel Vasanthi
- Report on “*The Himalaya Glacier and Community Responsibility*”
- 2011. Current panoply of the Indian Geological Congress — A travail towards seizing opportunities of the 21st Century. Abstracts-cum-Souvenir, 17th Convention of IGC, Nov. 10—12 Nov., 2011, pp. 73—86.
- 2011. New paradigms of exploration and sustainable mineral development: Vision 2050, Proc. 17th Convention of the Indian Geological Congress, 852 p. (also listed on next page under special volumes).
- 2011. Other publications of this years, only important ones are included in the following pages.

3(2) - Editorial: Illegal Mining Galore – A Long Unpalatable Story, pp. 1-6

- Edited and organized: 5th Prem Bahadur Verma Memorial Lecture by Rasik Ravindra
- 16th Foundation Lecture by Shri Y.B. Sinha
- Earth Day Celebration 2012 for “*Holding the Earth Green*”

2010

Journal Vol. 2(1), 162 p. and Vol. 2(2), 175 p.

2009

Journal Vol. 1(1), 170 p. and Vol. 1(2), 170 p.

Proceedings Volumes

1. Proc. Vol., Sixth Convention, Roorkee. *Editor: P.S. Moharir*, 257 pp., 1987. Price per Photostat copy: Rs. 500.00.
2. Proc. Vol., Eighth and Ninth Conventions: Acquisition of Modern Technologies for the Development of Geosciences: *Editors: G. Victor Rajamanickam & O.P. Varma*, Tamil University Press, Thanjavur, 287 pp., 1996. Price per copy: Rs. 500.00.
3. Record of Proceedings of Brain Storming Session on “*Quantification of Financial and Manpower Resources Devoted to R&D in Science and Technology - An Approach for Academic Sector*”, *Editor: O.P. Varma*, 93 pp., 1998. Price per copy: Rs. 200.00.
4. Proc. Vol., 17th Convention: “*New Paradigms of Exploration and Sustainable Mineral Development: Vision 2050*” *Editors: O.P. Varma, B.C. Sarkar, A.K. Varma, M.K. Mukherjee & Sahendra Singh*, ISM, Dhanbad, 96 pp., 2011. Price per copy: Rs. 500.00
5. 18th Convention Volume, Pre-Conventional Vol. “*Minerals & Mining in India – the way forward, inclusive of cooperation mineral-based industries in SAARC Countries*”, Bhopal, April 27-29, 2013. *Editor: O.P. Varma*, 133 p., Price Rs. 500/- per copy.
6. 19th Convention, Pre-Conference Vol. “*Climate Change & natural resources development strategies: Risk management and governance in mountainous region*”, Itanagar, Nov. 27-29, 2014. *Editor: O.P. Varma*, 146 p., Price Rs. 1000/- per copy.
7. 20th Convention Special Vol. “*Make in India: Challenges and Opportunities for Mineral, Mining and Energy Resources*”, Oct. 3-5, 2017, Nagpur. *Editor: O.P. Varma*, 176 p., with Preface by O.P. Varma, pp. 1-2; IGC Journal, Vol. 9(2), Dec., 2017. Price Rs. 1500/- per copy. It containing paper by the nominee “*Rare Metals (Nb, Na) and Rare Earths (REE) Ore Mineralization in the Sung Valley Carbonatite Complex*,

Books/Chapters in Books – in chronological order

Special Publications/Thematic Volumes

1. **“Vision Papers for R&D in Earth and Atmospheric Sciences”** - A publication of Earth System Science Division, DST, Govt. of India. *Editor: O.P. Varma*, 100 pp., 1998. Price per copy: Rs. 300.00.
2. **“Research Highlights in Earth System Science”** Vol.1, *Chief Editor: O.P. Varma*, 379 pp., 2000. Price per copy: Rs. 1200.00.
3. **“Research Highlights in Earth System Science”** Vol.2, Focus on **“Seismicity”**, *Editor: O.P. Varma*, 400 pp., 2001. Price per copy: Rs. 1200.00.
4. **Proc. Vol., “National Meet on the S&T Inputs for Water Resources Management”**, 1997, Editors: B.B.S. Singhal & O.P. Varma, 232 pp., 2003. Price per copy: Rs. 1200.00.
5. **Proc. Vol. on “Natural Hazard”**, *Editor: O.P. Varma*, 307 pp., 2007. Price per copy: Rs. 1200.00.
6. Hard bound special Vol. **“Coastal Hazard”** 316 pp. Rs. 2000/-
7. **Special Volume on “Unconformity – Riddled Cenozoics of the Foreland Basin and Elevation of the Himalaya”** – *Shri V. Raiverman, Editor: O.P. Varma*, 147 pp., 2012. Price per copy: Hard Bound copy: Rs. 2000.00, Soft Bound copy: Rs. 1000.00
8. Proc. Vol., 17th Convention: **“New Paradigms of Exploration and Sustainable Mineral Development: Vision 2050”** *Editors: O.P. Varma, B.C. Sarkar, A.K. Varma, M.K. Mukherjee & Sahendra Singh*, ISM, Dhanbad, 852 pp., 2011. Price per copy: Rs. 2000.00
9. **Pyroclastic Rocks of India in Time & Space** by *N.C. Ghose* – first classic treatise on this topic. *Editor: O.P. Varma*. About 550 pages with illustrations close to 600. Price Rs. 3000/- (US \$ 350) per copy. The title is under processing of the editor.

Monographs

1. **Comparative Metallogeny: “Sulphide Deposits of Archaean and Proterozoic Terrains of India”** B.K. Nayak, 1991. (Not available)
2. **“Potential of Oil-Find in the Indo-Gangetic Plains”** Gokul Ch. Naik, 1995 (Hard Bound). Price per copy: Rs. 200.00.

Technical Reports/Newspaper/Review – chronological list

1. **VI Convention** of Indian Geological Congress, Roorkee, 1987. Price per copy: Rs. 300.00.
2. **VIII Convention** of Indian Geological Congress and National Seminar on **“Recent Advances in Indian Mineral Scenario - Genesis and Exploration”**, Ujjain, 1991. Price per copy: Rs. 300.00.
3. **IX Convention** of Indian Geological Congress and National Seminar on **“Acquisition and appreciation of modern techniques in earth sciences-related industries”**, 75 pp., Thanjavur, 1993. Price per copy: Rs. 300.00.
4. **X Convention** of Indian Geological Congress and National Seminar on **“Precambrian Crustal Evolution and Metallogenesis”**, Dhanbad, 83 pp., 1996. Price per copy: Rs. 300.00.
5. **XI Convention** of Indian Geological Congress, Mysore, 89 pp., 1998. Price per copy: Rs. 300.00.
6. **XII Convention** of Indian Geological Congress and National Seminar on **“Ground Water Resources”** Udaipur 2000. Price per copy: Rs. 300.00.
7. **XIII Convention** of Indian Geological Congress and National Seminar on **“Natural Hazards”** Dehra Dun, 2003. Price per copy: Rs. 300.00.
8. **XIV Convention** of Indian Geological Congress and National Seminar on **“Earth Science: Its Relevance to Society”**, University of Delhi, Delhi, 68 pp., 2005. Price per copy: Rs. 300.00.

9. **XV Convention** of Indian Geological Congress and National Seminar on “**Geoexploration and Metal Mining: Vision 2025**” Dharwad, 2007. Price per copy: Rs. 500.00.
10. International Conference on “**Coastal Hazards**” 178 pp., Price Rs. 500/= Per copy.
11. **XVI Convention** of Indian Geological Congress on “**Climate change and Role of Geoscientific Community to counter its impacts**” 2009 priced Rs. 1500/= Per copy.
12. **XVII Convention** of Indian Geological Congress on “**New Paradigms of Exploration and Sustainable Mineral Development: Vision 2050**” 2011 priced Rs. 500/- per copy
13. **XVIII Convention** of Indian Geological Congress on “**Mineral and Mining in India – The Way Forward, Inclusive of Cooperative Mineral-based Industries in SAARC Countries**” 2013 priced Rs. 500/- per copy

Abstracts: International Colloquium: Role of Women Geoscientists in National Planning and Development Programmes, New Delhi, 101 pp., 1992. Price per copy: Rs. 300.00.

Abstracts of Papers & Key-Note Addresses: Regional Workshop on “Inputs from Remote Sensing for Natural Hazards Mitigation”, AMU, Aligarh, 58 pp., 1998. Price per copy: Rs. 300.00.

Extended Abstracts : Brain Storming Session (BSS) on “**Herbo-Mineral Pharmaceutical Products In Indian Systems of Medicine: Problems & Prospects**”, JamiaHamdard, New Delhi, 132 pp., 2004. Price per copy: Rs. 500.00.

Abstracts Volume : International Conference on “**Coastal Hazards**”, SASTRA Deemed University, Thanjavur, 178 pp., 2005. Price per copy: Rs. 500.00.

Abstracts Volume : Workshop on “**October 8, 2005 Kashmir Earthquake and After**”, University of Jammu, Jammu, 49 pp., 2008. Price per copy: Rs. 500.00.

Recommendations : Workshop on “**Exploration & Evaluation of Coastal and Offshore Resources (Minerals & Energy)**”, Mangalore 2003. Price per copy: Rs. 300.00.

Recommendations : National Conference on “**Natural Hazards (Earthquakes and Landslides): Challenges, Perspectives and Societal Dimensions with Focus on the State of Uttaranchal**”, Dehra Dun 2003. Price per copy: Rs. 300.00.

Recommendations : Brain Storming Session (BSS) on “**Herbo-Mineral Pharmaceutical Products In Indian Systems of Medicine: Problems & Prospects**”, JamiaHamdard, New Delhi, 2004. Price per copy: Rs. 300.00.

Recommendations : International Conference on “**Coastal Hazards**”, SASTRA Deemed University, Thanjavur, 2005. Price per copy: Rs. 300.00.

IGC Directory of Members 2003. Price per copy: Rs. 300.00.

IGC Souvenir released on the occasion of Silver Jubilee Celebration Dehra Dun 2003. Price per copy: Rs. 300.00.

Ten Best of the above Publications

1. “**Vision Papers for R&D in Earth and Atmospheric Sciences**” - A publication of Earth System Science Division, DST, Govt. of India. **Editor: O.P. Varma**, 100 pp., 1998. Price per copy: Rs. 300.00.
2. “**Research Highlights in Earth System Science**” Vol.1, **Chief Editor: O.P. Varma**, 379 pp., 2000. Price per copy: Rs. 1200.00.
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9. **Comparative Metallogeny: “Sulphide Deposits of Archaean and Proterozoic Terrains of India”** B.K. Nayak, 1991. (Not available)
10. **“Potential of Oil-Find in the Indo-Gangetic Plains”** Gokul Ch. Naik, 1995 (Hard Bound). Price per copy: Rs. 200.00.

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