

FACULTY PROFILE

DEPARTMENT: **GEOLOGY**

NAME: **DR. HARSHAVARDHAN KUMAR**

DIGITAL PHOTOGRAPH:



DESIGNATION:	ASSISTANT PROFESSOR (In-Charge/HEAD)
DATE OF JOINING THIS COLLEGE:	05TH FEBRUARY 2018
TEACHING EXPERIENCE [at UG & PG level only]:	5 YEARS
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ACADEMIC QUALIFICATIONS [PG & above only]:	M.SC. (GEOLOGY), PH.D. (APPLIED GEOLOGY; IIT-ISM DHANBAD)
SPECIALIZATION/RESEARCH AREA:	IGNEOUS PETROLOGY & GEOCHEMISTRY; ECONOMIC GEOLOGY; MINERAL CHEMISTRY
SUPERVISING RESEARCH SCHOLARS/ PURSUING RESEARCH:	<u>RESEARCH ARTICLE IN PROGRESS:</u> 1. Kumar, H., Asthana, D., 2020. The ~2.5 Ga Cu (-Mo-Au) bearing Malanjkhanda granitoids, Central India: rift-related or Subduction related? 2. Kumar, H., Asthana, D., Xia, Q., 2020. Amphibole Geochemistry of the ~2.5 Ga Malanjkhanda granitoids, Central India:

Implications for the Archean arc-magmatism and metallogeny.

M.Sc. Theses Supervised: Eight (08) in numbers.

1. **Dissertation title:** “Petrographic and Geochemical study of Iron Ore Formation, Gandhamardan Hill, Suakati-Keonjhar Area.” **Submitted by: BANANI MAHANTA, M.Sc. Geology (2016-2018), ID No. 021262016.** Under the *External Supervision of Dr. Harshavardhan Kumar*, Assistant Professor, Department of Geology, St. Columba’s College, Hazaribag (Jharkhand).
2. **Dissertation title:** “Petrological studies in and around Ladakh.” **Submitted by: MOHD. SADIQ KHAN, M.Sc. Geology (2016-2018), ID No. 021282313.** Under the *Supervision of Dr. Harshavardhan Kumar*, Assistant Professor, Department of Geology, BFIT Group of Institutions, Suddhowala, Dehradun (Uttarakhand). Affiliated to H.N.B. Garhwal Central University, Uttarakhand.
3. **Dissertation title:** “Study of the Malanjkhanda granitoids in and around PIPARDHAR EAST BLOCK AREA: Its petrographic, Mineralogical and geochemical characteristics.” **Submitted by: Jitendra Singh, M.Sc. Geology (2015-2017), ID No. 02957815.** Under the *Supervision of Dr. Harshavardhan Kumar*, Assistant Professor, Department of Geology, BFIT Group of Institutions, Suddhowala, Dehradun (Uttarakhand). Affiliated to H.N.B. Garhwal Central University, Uttarakhand.
4. **Dissertation title:** “Study of the Malanjkhanda granitoids in and around GARHI DONGRI BLOCK AREA: Its petrographic, Mineralogical and geochemical characteristics.” **Submitted by: Himanshu Sharma, M.Sc. Geology (2015-2017), ID No. 02992215.** Under the *Supervision of Dr. Harshavardhan Kumar*, Assistant Professor, Department of Geology, BFIT Group of Institutions, Suddhowala, Dehradun (Uttarakhand). Affiliated to H.N.B. Garhwal Central University, Uttarakhand.
5. **Dissertation title:** “Study of the Malanjkhanda granitoids in and around GIDORI BLOCK: Its petrographic, Mineralogical and geochemical characteristics.” **Submitted by:**

	<p>CHIPENTHUNG B KITHAN, M.Sc. Geology (2015-2017), ID No. 02884315. Under the <i>Supervision of Dr. Harshavardhan Kumar</i>, Assistant Professor, Department of Geology, BFIT Group of Institutions, Suddhowala, Dehradun (Uttarakhand). Affiliated to H.N.B. Garhwal Central University, Uttarakhand.</p> <p>6. Dissertation title: “Study of the Malanjkhanda granitoids in and around MANEGAON AREA: Its petrographic, Mineralogical and geochemical characteristics.” Submitted by: GARGI SINGH, M.Sc. Geology (2015-2017), ID No. 02957615. Under the <i>Supervision of Dr. Harshavardhan Kumar</i>, Assistant Professor, Department of Geology, BFIT Group of Institutions, Suddhowala, Dehradun (Uttarakhand). Affiliated to H.N.B. Garhwal Central University, Uttarakhand.</p> <p>7. Dissertation title: “Study of the Malanjkhanda granitoids in and around BHANDARPUR AREA: Its petrographic, Mineralogical and geochemical characteristics.” Submitted by: KAJAL SINGH, M.Sc. Geology (2015-2017), ID No. 02988715. Under the <i>Supervision of Dr. Harshavardhan Kumar</i>, Assistant Professor, Department of Geology, BFIT Group of Institutions, Suddhowala, Dehradun (Uttarakhand). Affiliated to H.N.B. Garhwal Central University, Uttarakhand.</p> <p>8. Dissertation title: “Study of the Malanjkhanda granitoids in and around SHITALPANI BLOCK: Its petrographic, Mineralogical and geochemical characteristics.” Submitted by: PIDENO R ODYUO, M.Sc. Geology (2015-2017), ID No. 02960915. Under the <i>Supervision of Dr. Harshavardhan Kumar</i>, Assistant Professor, Department of Geology, BFIT Group of Institutions, Suddhowala, Dehradun (Uttarakhand). Affiliated to H.N.B. Garhwal Central University, Uttarakhand.</p>
RESEARCH PAPERS/ARTICLES:	<p><u>RESEARCH ARTICLE PUBLISHED IN INTERNATIONAL AND NATIONAL JOURNALS:</u></p> <ul style="list-style-type: none"> • Asthana, D., Kumar, S., Vind, A.K., Kumar, H., Pophare, A.M., 2018. Geochemical Fingerprinting of ~2.5 Ga forearc-arc-backarc related magmatic suites in the Bastar Craton, Central India. <i>Journal of Asian Earth Sciences</i>. 157, 218-234.

- **Kumar, H.**, Asthana, D., **2017**. The ~2.5 Ga Malanjkhand Copper Deposit of Central India. *Journal Indian Geological Congress*. Vol. 9 (1), 5-24
- Asthana, D., **Kumar, H.**, Balakrishnan, S., Xia, Q., Feng, M., **2016**. An early Cretaceous analogue of the ~2.5 Ga Malanjkhand porphyry Cu deposit, Central India. *Ore Geology Reviews*. 72, 1197-1212.
- Asthana, D., Pophare, A.M., **Kumar, H.**, **2014b**. Dongargarh-Kotri Belt: An Intra-continental Rift or an Andean-Type Active Continental Margin Related Mobile Belt? *Gondwana Geol. Mag. Spec*. Vol. 16, 215-218.
- Asthana, D., Pophare, A.M., Rajalingam, S., **Kumar, H.**, **2014a**. Neoproterozoic Dongargarh Rapakivi A-type Granites and its Relationship to Pitepani Tholeiites. *Gondwana Geol. Mag. Spec*. Vol. 16, 25-40.
- Kumari, R., **Kumar, H.**, Pathak, S., Biswas, D., Malik, S., **2019**. Role of Climate and Geo-engineering in development of Agricultural crops against climate fluctuation. *International Journal of Research and Analytical Reviews (IJRAR)*, E-ISSN 2348-1269, P-ISSN 2349-5138, Vol. 6 Issue 2, 240-243.
- Malik, S., **Kumar, H.**, Kumari, R., Pathak, S., **2018**. Prospects of Nanotechnology in Developing Indian Agriculture Farming. *International Journal of Research and Analytical Reviews (IJRAR)*, Vol. 5, Issue 4, 264-267.
- Singh, H.B., Devi, Kh.B., Awasthi, A., **Kumar, H.**, Malik, S., **2018**. Contribution of remote sensing in analysis of conservation and economic value of forest

stand: A review. *Int. J. Pure App. Biosci.* 6(6):314-318. Doi: <http://dx.doi.org/10.18782/2320-7051.7152> ISSN: 2320-7051

Presentations, Proceedings and Publications in International & National Conferences:

- Asthana, D., **Kumar, H.**, Kumar, S., Xia, Q., **2015**. The Role of amphiboles in the formation of Malanjkhand Porphyry Cu-deposit. **Goldschmidt Conference 2015 held in Prague, Czech Republic.**
- **Kumar, H.**, Asthana, D., Balakrishnan, S., Xia, Q., Feng, M., **2014**. An early Cretaceous analogue of the Neoproterozoic (~2.5 Ga) Malanjkhand porphyry Cu±Mo±Au deposit, Central India. Presented at the **National Seminar** on “Making of the Indian Continent” held in the Department of Geology, **Presidency University**, Kolkata, India.
- **Kumar, H.**, Asthana, D., Xia, Q., **2012**. Amphibole Chemistry of Malanjkhand Cu-deposits vis-à-vis modern Porphyry Cu-deposits. Presented during the **National Seminar** on “Recent advances and future challenges in Geochemistry and Geophysics: The Indian scenario & Annual General Body meeting of the Indian Society of Applied Geochimist (ISAGBHU)-2012,” held on **22-24 February, 2012**. Organized by: Department of Geology, centre of advanced study, Banaras Hindu University (BHU) & ISAG, Hyderabad.
- Asthana, D., Pophare, A.M., **Kumar, H.**, **2012**. The Dongargarh-Kotri Belt: An Intra-continental Rift or an Andean-Type Active Continental Margin Related Mobile Belt? Presented in the **National Workshop** on “Recent Advances in Geology of Dongargarh-Kotri Belt, Central India and its Mineral Potential” held at Nagpur on **21-22 June 2012**. Jointly organized by: **Atomic Minerals Directorate for Exploration & Research, Hyderabad;** and, Gondwana Geological Society, Nagpur.

	<ul style="list-style-type: none"> • Kumar, H*., Roy, Rajeeva., 2020. Teaching Earth Science: need of an effective pedagogy. National Conference on Innovation in Science Education (NASI, Jharkhand Chapter) at GSCW, Jamshedpur, January 21-22, 2020.
EDITED/AUTHORED BOOKS:	<p><u>WRITING A BOOK ENTITLED:</u></p> <ol style="list-style-type: none"> 1. Medical Geology: Reassessing Its Impact On Environment & Health.
AFFILIATION/ASSOCIATION WITH JOURNALS, etc.:	<ol style="list-style-type: none"> 1. Journal of Himalayan Geology, 2. Journal Indian Geological Congress, 3. Journal Geological Society of India
MEMBERSHIP/ATTACHMENT WITH DIFFERENT ASSOCIATIONS/INSTITUTIONS/BODIES/BOARDS:	<ul style="list-style-type: none"> • Life Member of Himalayan Geology (Life Member – 472) • Life Member of Indian Geological Congress (Life Member – 960) • Fellow of the Geological Society of India (GSI), Bangalore.
ACHIEVEMENTS/FELICITATIONS/AWARDS RECEIVED:	<ul style="list-style-type: none"> • Junior and Senior Research Fellowship availed at IIT-ISM, Dhanbad from September 2010 - January 2016. • SPG-NGRI Hyderabad Student Chapter, 2010. Got first prize in “Brain Storming” session.
ANY OTHER RELEVANT INFORMATION:	<ul style="list-style-type: none"> • Worked as Project Assistant Level-II, National Geophysical Research Institute (NGRI-CSIR), Hyderabad, India from Feb 2009-July 2010. Worked on CSIR-Network Project” isotopic and geochemical investigations in the coastal aquifers” under Dr. D.V. Reddy, Scientist ‘F’ (PI). • Worked as Project Trainee at Central Institute of Mining and Fuel Research (CIMFR-CSIR), Dhanbad, on work entitled “CBM and Coal Exploration” under the Supervision of Dr. A.K. Singh, at Methane Emission & Degasification Division at Barwa Road Campus of CIMFR, Dhanbad.

Harekrishan Kumar

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