

## **DR. SOM DUTT, WIHG, DEHRADUN, INDIA**

### **Google Scholar Page:**

[HTTPS://SCHOLAR.GOOGLE.CO.IN/CITATIONS?USER=vLs\\_USMAAAAJ&HL=EN&AUTHUSER=1](https://scholar.google.co.in/citations?user=vLs_USMAAAAJ&hl=en&authuser=1)

### **RESEARCH GROUP:**

Sedimentology

### **FIELD OF SPECIALIZATION:**

Palaeoclimate, Isotope geology

### **EDUCATION:**

2018 Ph.D. Geosciences, University of Petroleum and Energy studies, Dehradun

2012 M.Sc. Applied Geology, Kurukshetra University, Kurukshetra

2009 B.Sc., Kurukshetra University, Kurukshetra

### **PROFESSIONAL EXPERIENCE:**

Scientist 'C' (13 Dec. 2018-till date)

Scientist 'B' (05 Dec. 2015-12 Dec. 2018)

Junior Research Fellow (08 Aug. 2012-04 Dec. 2014)

### **VISITING POSITIONS:**

None

### **TEACHING EXPERIENCE:**

None

### **SERVICES:**

**a. Supervision/Guidance to Ph.D. Students:** Supervising one student (Ms. Dipanwita Sengupta) for PhD

**b. Training:** 03 M.Sc. /M. Tech. dissertation and 10 summer/winter internship

**c. Teaching:** None

**d. Membership:**

Member of SISAL (Speleothem Isotope Synthesis and AnaLysis Working Group)

Member of Speleogenesis scientific network

**e. Editorial Board:** None

**f. International/National Seminars/Workshop:** None

**g. External Research Fund received & Project Handled:** None

**h. Member of important Committees:** None

### **AWARDS/FELLOWSHIPS/HONORS/MEMORIAL LECTURES:**

**a. Awards/Medals/Prizes:** None

**b. Fellowships:** Junior Research Fellowship in J C Bose Fellowship project under Prof. Anil K. Gupta at Wadia Institute of Himalayan Geology (08 Aug. 2012-04 Dec. 2014)

**c. Memorial Lectures:** None

**d. Recognition/Honors:** None

**COUNTRIES VISITED:** None

**NATIONAL/INTERNATIONAL (outside WIHG) COLLABORATION:**

Prof. Anil Kumar Gupta, IIT Kharagpur, India

**Inside WIHG Collaborator:**

Dr. Anil Kumar  
Dr. R R Yadav

**PATENT**

None

**SCHOLARSHIPS AWARDED, GATE**

CSIR-UGC National Eligibility Test (NET)-JRF Examination (June-2013)  
Graduate Aptitude Test in Engineering (GATE-2013)  
POSE scholarship by Govt. of Haryana (India) during M.Sc. Applied Geology (2010-12)

**PH.D. ADVISOR:**

Prof. Anil Kumar Gupta, Indian Institute of technology Kharagpur (West Bengal), India

**LIST OF PUBLICATIONS**

**(a) SCI Papers**

**2021**

12. **Dutt, Som**, Gupta, Anil K., Cheng, Hai, Clemens, Steven C., Singh, Raj K., Tewari, Vinod, C. Indian summer monsoon variability in northeastern India during the last two millennia. Quaternary International, 571, 73-80.

**2020**

11. Singh, S., Gupta, A. K., **Dutt, S.**, Bhaumik, A. K., Anderson, D. M. (2020). Abrupt shifts in the Indian summer monsoon during the last three millennia. *Quaternary International*, 558, 59-65.
10. Jaglan, S., Gupta, A. K., Cheng, H., Clemens, S. C., **Dutt, S.**, Balaji, S. (2020). Indian summer monsoon variability during the last millennium as recorded in stalagmite from Baratang Mahadev cave, Andaman Islands. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 557, 109908.
9. Jalal, P., Pandey, J.B., Ahmad, S.M., **Dutt, S.**, Shukla, U.K., Maddodi, B. (2020) Effect of Deccan lava flows on the sedimentological evolution of Gurmatkal intertrappeans Karnataka, Southern India. *Geological Journal* (accepted).
8. Kumar, A., **Dutt, S.**, Saraswat, R., Gupta, A. K., Clift, P. D., Pandey, D. K., Yu, Z., Kulhanek, D. K. (2019). A late Pleistocene sedimentation in the Indus Fan, Arabian Sea, IODP Site U1457. *Geological Magazine*, 1-9.

## **2019**

7. Gupta, A. K., **Dutt, S.**, Cheng, H., Singh, R. K. (2019). Abrupt changes in Indian summer monsoon strength during the last~ 900 years and their linkages to socio-economic conditions in the Indian subcontinent. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 536, 109347.
6. **Dutt, S.**, Gupta, A. K., Singh, M., Jaglan, S., Saravanan, P., Balachandiran, P., Singh, A. (2019). Climate variability and evolution of the Indus civilization. *Quaternary International*, vol. 507, pp. 15-23 .
5. Singhal, S., Mukherjee, P.K., Saini, N.K., **Dutt, S.**, Kumar, R. (2019). Effect of carbon on major element analysis of carbonaceous silicate rocks by WD-XRF: An evaluation of error and its correction. *Geochemistry: Exploration, Environment, Analysis*, vol. 19, pp. 31-38.

## **2018**

4. **Dutt, S.**, Gupta, A.K., Wunnemann, B., Yan, D. (2018). A long arid interlude in the Indian summer monsoon during ~4,350 to 3,450 cal. yr BP contemporaneous to displacement of the Indus valley civilization. *Quaternary International*, vol. 483, pp. 83-92.
3. Sah, N., Kumar, M., Upadhyay, R., **Dutt, S.** (2018). Hill slope instability of Nainital City, Kumaun Lesser Himalaya, Uttarakhand, India. *Journal of Rock Mechanics and Geotechnical Engineering*, Vol. 10, pp. 280-289.

## **2017**

2. Mukherjee, P.K., Singhal, S., Adlakha, V., Rai, S.K., **Dutt, S.**, Kharya, A., Gupta, A.K. (2017). In situ U-Pb zircon micro-geochronology of MCT zone rocks in the Lesser Himalaya using LA-MC-

ICPMS technique. Current Science, Vol. 112, pp. 802-810.

## **2015**

1. **Dutt, S.**, Gupta, A.K., Clemens, S.C., Cheng, H., Singh, R.K., Kathayat, G., Edwards, R.L. (2015). Abrupt changes in Indian summer monsoon strength during 33,800 to 5500 years B.P., Geophysical Research Letters, Vol. 42, pp. 5526-5532.

### **(b) Non-SCI Articles**

### **(c) Chapter in Books**

1. 2020 Gupta, A. K., Prakasam, M., **Dutt, S.**, Clift, P.D., Yadav, R.R. Evolution and development of the Indian Monsoon. In: *Geodynamics of the Indian Plate: Evolutionary Perspectives*, 499-535, Springer.

### **(d) Books-authored/Edited volume: None**

### **(e) Abstract volume: None**

### **(f) Reports/Other Documents: None**

### **(g) Articles in Proceeding Volumes:**

16. Dutt, S. and Yadav, R.R. (2019) Human dimensions of climate change since late Holocene in India. 27<sup>th</sup> Indian Colloquium for micropaleontology and stratigraphy, 4 - 6, November, 2019, Banaras Hindu University, India.
15. Dutt, S., Gupta, A.K., Cheng, H., Clemens, S.C., Singh, R.K., Jaglan, S., Tewari, V.C., 2019. Indian summer monsoon variability and its driving factors during past two millennia. International Conference on Climate Change Impacts, Vulnerabilities, and Adaptation: Emphasis on India and Neighbourhood (CCIVA 2019), 26th February – 02nd March 2019, Indian Institute of Technology Kharagpur.
14. Jaglan, S., Gupta, A.K., Dutt, S., Cheng, H., Clemens, S.C., 2019. Reconstruction of Indian summer monsoon variability during 45000 to 5500 years by using a composite □□□□□ record from northeastern India. International Conference on Climate Change Impacts, Vulnerabilities, and

Adaptation: Emphasis on India and Neighbourhood (CCIVA 2019), 26th February – 02nd March 2019, Indian Institute of Technology Kharagpur.

13. Dutt, S., Gupta, A.K., Cheng, Singh, R.K., 2019. Abrupt fluctuations in Indian summer monsoon precipitation over last ~900 years. Seminar cum workshop on recent advances in the Indian earth sciences. 25-26 March, 2019, Kumaun University, Nainital (Uttarakhand).
12. Singh, S., Gupta, A. K., Dutt, S., Mishra, P. K., Bhaumik, A.K. (2018). Paleoclimate variability in the NW Himalaya over the past three millennia. European Geosciences Union General Assembly 2018 Vienna, Austria,| 8–13 April 2018.
11. Dutt, S., Gupta, A. K., Singh, R. K., Clemens, S. C., Cheng, H. (2018). Solar influence on Indian summer monsoon variability during the last two millennia. National Conference on Earth System Science with special reference to Himalaya: advancement and challenges, WIHG Dehradun, May 16-18, 2018, p. 75
10. Singh, S., Gupta, A.K., Dutt, S., Mishra, P. K., Bhaumik, A.K. (2018). Paleoclimate variability in the NW Himalaya over the past three millennia. National Conference on Earth System Science with special reference to Himalaya: advancement and challenges, WIHG Dehradun, May 16-18, 2018, p. 72
9. Singhal, S., Mukherjee, P.K., Saini, N.K., Dutt, S., Kumar, R. (2018) Effect of carbon on element analysis of carbonaceous silicate rocks by WD-XRF: An evaluation of error and its correction. National Conference on Earth System Science with special reference to Himalaya: advancement and challenges, WIHG Dehradun, May 16-18, 2018, p. 32.
8. Kumar, A., Sagwal, S., Dutt, S., Saraswat, R., Clift, P. D., Yu, Z. (2018). Source-sink relationship between Indus river system and Indus Fan: a multiple proxy record from Indus fan sediment Site U1457. National Conference on Earth System Science with special reference to Himalaya: advancement and challenges, WIHG Dehradun, May 16-18, 2018, p. 51.
7. Sonu, Gupta, A.K., Dutt, S. (2016). Speleothem: proxy for Indian Summer Monsoon variability. Abstract Volume, 1st National Geo-Research Scholar Meet-Dehradun, June 1st-4th, 2016, p 2.
6. Dutt, S., Gupta, A.K., Cheng, H., Rai, S.K., Singh, R.K. (2015). Variability in Indian monsoon over past 5,000 years: Implications on Indian society. Abstract Volume, 30th Himalayan Karakoram Tibet workshop-Dehradun, October 6th-8th, 2015, p. 292.
5. Gupta, A.K., Prakasam, M., Yuvaraja, A., Dutt, S., Das, M., Singh, R.K., Velu A. (2015). Inception of the Indian monsoon and its abrupt behavior since the late Pleistocene. Abstract Volume, 30th Himalayan Karakoram Tibet workshop-Dehradun, October 6th-8th, 2015, p. 170-171.
4. Dutt, S., and Gupta, A.K. (2015). Precipitation Variability in the Himalayan region over the last 1300 years. Abstract Volume, 4th Bhartiya Vigyan Sammelan (BVS)-Goa, February, 5th – 8th, 2015, p. 6.

3. Gupta, A. K., Dutt, S., Pandey, D.N., Anderson, D. M., Clemens, S. C., Cheng, H., Singh, R. K., Kathayat, G. (2015). Extreme Changes in Indian Summer Monsoon and Adaptation Strategies. Abstract Volume, 4th Bhartiya Vigyan Sammelan (BVS)-Goa, February, 5th – 8th, 2015, p. 185.
2. Gupta, A. K. and Dutt, S. (2014). Abrupt changes in summer precipitation in South Asia since MIS- 3. Abstract Volume, Climate change and environmental sustainability: Records from poles to Tropics, at Lucknow University, Lucknow, September 9th -10th 2014, serial no. 110.
1. Dutt, S. and Gupta, A. K. (2013). Indian Summer Monsoon Variability in the Northwestern Himalaya during the last 1300 years, Abstract volume, XXIV Indian Colloquium on Micropaleontology and Stratigraphy (ICMS) 2013, p. 22-23.