

DR. CHHAVI P. PANDEY, WIHG, DEHRADUN, INDIA



RESEARCH GROUP: GEOPHYSICS

FIELD OF SPECIALIZATION: ATMOSPHERIC SCIENCE, AIR POLLUTION, TIME SERIES ANALYSIS, STATISTICAL DATA PROCESSING.

EDUCATION: PHD (PHYSICS)

PROFESSIONAL EXPERIENCE:

SCIENTIST 'C' (WADIA INSTITUTE OF HIMALAYAN GEOLOGY, DEHRADUN)

SEPTEMBER 2019 - PRESENT

SCIENTIST 'B' (WADIA INSTITUTE OF HIMALAYAN GEOLOGY, DEHRADUN)

AUGUST 2015 - AUGUST 2019

VISITING POSITIONS:

Visiting scholar at Department of Physics, May 15 - July 15, 2009, University of Konstanz, Konstanz, Germany.

TEACHING EXPERIENCE:

ASSISTANT PROFESSOR (AD-HOC)

DEPARTMENT OF PHYSICS,

KANYA GURUKUL CAMPUS,

GURUKUL KANGRI VISHVAVIDYALAYA, HARIDWAR

AUGUST - NOVEMBER 2014

AUGUST - NOVEMBER 2013

AUGUST - NOVEMBER 2012

GUEST FACULTY

JANUARY - APRIL 2014

JANUARY - APRIL 2015

SERVICES:

a. Supervision/Guidance to Ph.D. Students: Two students are registered under co-supervision

b. Training:

M.Sc. Dissertation: 3 (three)

Summer Trainee: 6 (six)

c. Teaching:

d. Membership:

- Life member of “National Radon Network Society” (RADNET), SRT Campus, HNB University, Tehri Garhwal, Uttarakhand, India.
- Life member of ”The association of Physics Teachers” (IAPT), Kanpur, Uttar Pradesh India.

e. Editorial Board:

f. International/National Seminars/Workshop:

- i) 3rd International Conference on Recent Advances in Mathematical Sciences and its Applications (RAMSA) January 17-19, 2019, Department of Mathematics, Jaypee Institute of Information Technology, Noida, India.

- ii) International Conference on Climate Change and Disaster Risk Reduction, October 26-28, 2018, H.N.B. Garhwal University S.R.T. Campus, Tehri, Uttarakhand, India.
- iii) International Conference on Aerosol, Air Quality & Climate Change on Himalayan Region of Uttarakhand (AAC-2018), October 21-23, 2018, H. N. B. University, Srinagar Garhwal, Uttarakhand, India.
- iv) Refresher Course on Landslide Studies and Earthquake Geology, March 19-23, 2018, Regional Training Institute, Northern Region, Dehradun, India.
- v) 2nd International Conference on Recent Advances in Mathematical Sciences and its Applications (RAMSA) December 12-14, 2017, Department of Mathematics, Jaypee Institute of Information Technology, Noida, India.
- vi) National Workshop on Earthquake safety in Himalaya, November 21-22, 2017, Dehradun, India. • XXXII Annual IAPT Convention 2017, Oct 29-31, 2017 GKV Haridwar & IAPT, RC-5, Haridwar, India.
- vii) 2nd Second National Conference on Radon Awareness and Detection in Natural Environment (RADNET II), Spetember 25-27, 2017, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
- viii) Bhartiya Vigyan Sammelan and Expo, May, 11-14, 2017, Fergusson College, Pune India.
- ix) Geophysical Software Practices for Subsurface Imaging, December 12-17, 2016, Department of Applied Geophysics, Indian Institute of Technology (ISM), Dhanbad, Jharkhand, India.
- x) 2nd India International Science Festival December 7-11, 2016, National Physical Laboratory, New Delhi.
- xi) Low cost experiments and Hands on training in Physics September 19-20, 2016, Gurukul Kangri University, Haridwar, India.
- xii) 1st India International Science Festival December 4-8, 2015, New Delhi, India.
- xiii) International Workshop on Stellar Spectral Libraries December 5-9, 2011, University of Delhi, India.
- xiv) Recent Trends in Micro and Macro Physics October 12-13, 2011, Govt. PG College, Gopeshwar, Uttarakhand, India.
- xv) Workshop on Rapidly Oscillating Ap stars February 25 - March 3, 2012, Institute Fur Astrophysik. Vienna, Austria.
- xvi) VAMDC Annual Meeting February 21-24, 2012, University of Vienna, Vienna, Austria.

- xvii) Visited OAC Mountain Observing Station, August 2-20 2008, Mario G. Fracastoro, Catania, Italy.
- xviii) Summer School in Cosmology, July 21 - August 1 2008, International Centre for Theoretical Physics (ICTP), Italy.
- xix) 11th Young Astronomers' Meet, January 3-5, 2008, School of Pure and Applied Physics, Mahatma Gandhi University, Kottayam, India.
- xx) The Indian Institute of Astrophysics-Penn State University Astrostatistics School, July 2-7, 2007, Kavalur, Tamilnadu, India.
- xxi) International Workshop on Theoretical High Energy Physics (IWTHEP) March 15-20, 2007, Roorkee, India.
- xxii) The XXVth Meeting of the Astronomical Society of India, February 7-9, 2007, Department of Astronomy, Osmania University, Hyderabad, India.
- xxiii) 10th Young Astronomers' Meet, January 3-5, 2007, Indian Institute of Astrophysics, Bangalore, India.
- xxiv) High Energy Physics Symposium, December 11-15, 2006 Department of Physics & Meteorology, IIT Kharagpur, India
- xxv) Recent Trends in the Fluorescence Spectroscopy and its Application, December 1-3, 2005, Department of Physics, Kumaun University, Nainital, India.

g. External Research Fund received & Project Handled:

h. Member of important Committees:

a. Awards/Medals/Prizes:

“Young Scientist Award” for best oral presentation, (category II) under the discipline Environment Science and Forestry during 14th Uttarakhand State Science and Technology Congress 2019-2020.

b. Fellowships:

- Junior & Senior research fellow (JRF/SRF) January 2006 - July 2008.
(Aryabhata Research Institute of Observational Sciences, Nainital)

c. Memorial Lectures:

d. Recognition/Honors:

COUNTRIES VISITED: ITALY, GERMANY, AUSTRIA.

NATIONAL/INTERNATIONAL COLLABORATION:

Inside WIHG Collaborator:

Dr. Sushil Kumar, Dr. P. S. Negi, Dr. Narendra Kumar, Dr. Praveen Kumar, Dr. Sandeep Chabak.

PATENT -- NA -- -

PH.D. ADVISOR: CURRENTLY TWO STUDENTS ARE REGISTERED UNDER CO-SUPERVISION

PROF SHUCHI BISHT

DEPARTMENT OF PHYSICS
DSB CAMPUS,
KUMANUN UNIVERSITY, NAINITAL,
UTTARAKHAND

DR. B. B. SANWAL

SCIENTIST (Retd.)
ARYABHATTA RESEARCH INSTITUTE OF OBSERVATIONAL SCIENCE
(An autonomous institute under the Department of Science and Technology, Govt. of India)
MANORA PEAK, NAINITAL
UTTARAKHAND

LIST OF PUBLICATIONS

(a) SCI Papers

1. **Chhavi P. Pandey**, Jaydeep Singh, Vijay K. Soni, Narendra Singh. (2020), Yearlong first measurements of black carbon in the western Indian Himalaya: Influences of meteorology and fire emissions (in press) Atmospheric Pollution Research.
2. P. S. Negi, **Chhavi P. Pandey**, Narendra Singh. (2019), Black carbon aerosol in the ambient air of Gangotri Glacier Valley in North-Western Indian Himalaya. Atmospheric Environment, 217.
3. Amar Deep, **Chhavi P. Pandey**, Hemwati Nandan, K. D. Purohit, Narendra Singh, Jaydeep Singh, A. K. Srivastava and Narendra Ojha. (2019), Evaluation of ambient air quality in Dehradun city during 2011-2014. Journal of Earth System Science, 128, 96.
4. K. Ray, P. Pandey, **C. Pandey**, A. P. Dimiri. (2019), On the recent floods in India. Current Science, 117,2.
5. N. Kishore, A. K. Srivastava, H. Nandan, **C. P. Pandey**, S. Agarwal, N. Singh, V. K. Soni, D. S. Bisht, S. Tiwari, Manoj K. Srivastava. (2019), Long-term (2005-2012) measurements of near-surface air pollutants at an urban location in Ind-Gangetic Basin. Journal of Earth System Science, 128,55
6. **Chhavi P. Pandey**, Denis V. Shulyak, Tanya Ryabchikova and Oleg Kochukhov, (2011). Abundance and stratification analysis of the CP star HD 103498 Monthly Notices of Royal Astronomical Society. 417, 444-452
7. **Chhavi P. Pandey**, T. Morel, M. Briquet, K. Jayakumar, S. Bisht, B.B. Sanwal. (2011), A spectroscopic study of the hybrid pulsator γ Pegasi, Communications in Asteroseismology, 162, 21.
8. **Chhavi P. Pandey**, U. D. Goswami, H. Dehnen, S. Bisht. (2011) Anharmonic vibrations in pulsating stars, Indian Journal of Physics, 86(9):849853.
9. L. Fossati, T. Ryabchikova, D. V. Shulyak, C. A. Haswell, A. Elmasli, **C. P. Pandey**, T. G. Barnes and K. Zwintz. (2011), The accuracy of stellar atmospheric parameter determinations: a case study with HD 32115 HD 37594, Monthly Notices of Royal Astronomical Society, 417, 459–507

(b) Non-SCI Articles

- i) छवि पंत पांडेय, (2019), “जलवायु परिवर्तन का खगोलीय सिद्धांत”, अश्मिका*, अंक 25 पृष्ठ 17.
- ii) छवि पंत पांडेय, (2018) वीसैट तकनीकी व उसके अनुप्रयोग, अश्मिका, अंक 24, पृष्ठ 58.
- iii) छवि पंत पांडेय, (2017), मंगल ग्रह में जीवन की सम्भावना, अश्मिका, अंक 23, पृष्ठ 1.

* (राजभाषा कार्यान्वयन समिति, वाडिया हिमालय भूविज्ञान संस्थान, देहरादून द्वारा प्रकाशित वार्षिक पत्रिका)

- iv) U.D. Goswami, Hemwati Nandan, **C.P. Pandey** and N.M. Bezares-Roder, (2009) Covariant Formalism of Maxwells Equations and Related Aspects Journal of Physics Education 26, 926.
- v) U. D. Goswami, Hemwati Nandan, **C. P. Pandey** and N. M. Bezares-Roder (2008) Maxwells equations, electromagnetic waves and magnetic charges, Journal of Physics Education 25, 251.

(c) Chapter in Books -- NA --

(d) Books-authored/Edited volume: ---NA --

(e) Abstract volume:

- i) Surendra K. Dhaka, Sachiko Hayashida, Yutaka Matsumi, A. P. Dimri, Saumya G. Kutty, Vivek Panwar, Vinay Kumar, Narendra Singh, **Chhavi P. Pandey**, Hemwati Nandan, Ramesh P. Singh. *Measurements of PM 2.5 concentration using smart and compact sensor in Delhi NCR during 2016-2018*. International Workshop on Climate Change and Extreme Events in Himalayan Region IIT Mandi, Himanchal Pradesh, India 18-20 April 2019 pp 135.
- ii) **Chhavi P Pandey**, Sanjay S Bora, Sushil Kumar, Sandeep K Chabak. *Analysis of frequency content in strong motion earthquake records using time-frequency method*. 3rd International Conference on Recent Advances in Mathematical Sciences and its Applications (RAMSA) JIIT Noida, UP, India, 17-19 Jan 2019 pp B.7.
- iii) **Chhavi P. Pandey**, P. S. Negi, Narendra Singh. *Black carbon variations over two high altitude stations in Garhwal Himalaya of Uttarakhand*. International Conference on Climate Change and Disaster Risk Reduction. Department of Geology, HNB Garhwal University, Campus Badshahi Thaul, Tehri Garhwal, Uttarakhand, India 26-28 Oct, 2018 pp 82.

- iv) P. S. Negi, **Chhavi P. Pandey**. *Investigation on Black Carbon Aerosol concentration in high Himalayan region of Gangotri Glacier Valley, Northwestern Indian Himalaya*. International conference on Aerosol, Air Quality and Climate Change on Himalayan region of Uttarakhand, HNBG Central University, Srinagar, Uttarakhand India. 21-23 Oct, 2018 pp 24.
- v) N. Kishore, A. K. Srivastava, H. Nandan, **C. P. Pandey**, S. Agrawal, N. Singh, Amar Deep. *Long Term [2005-2012] Investigation of Air Pollutants and its Association with Meteorological Parameters at Dehradun in the Himalayan Region*. International conference on Aerosol, Air Quality and Climate Change on Himalayan region of Uttarakhand, HNBG Central University, Srinagar, Uttarakhand India, 21-23 Oct, 2018 pp 37.
- vi) **Chhavi P. Pandey**, Abhishek Joshi, Amar Deep, Hemwati Nandan, Narendra Singh. *Study of extreme precipitation over a century in Uttarakhand, India*. International conference on Aerosol, Air Quality and Climate Change on Himalayan region of Uttarakhand, HNBG Central University, Srinagar, Uttarakhand India, 21-23 Oct, 2018 pp 165.
- vii) Amar Deep, **Chhavi P. Pandey**, Hemwati Nandan, Narendra Singh, Garima Yadav, K. D. Purohit. *Long-Term Study of Aerosols Optical Depth and Ångström Exponent over Garhwal Himalayas: A Case Study of Chamoli and Dehradun Districts of Uttarakhand* International conference on Aerosol, Air Quality and Climate Change on Himalayan region of Uttarakhand., 21-23 Oct, 2018 pp 37.
- viii) Amar Deep, **Chhavi P. Pandey**, Hemwati Nandan, K. D. Purohit, Narendra Singh. *A comparative study of PM₁₀ in major cities of Uttarakhand*. *Bhartiya Vigyan Sammelan and Expo*, Fergusson College, Pune. 11-14 May 2017 pp 72.

(f) Reports/Other Documents:

(g) Articles in Proceeding Volumes

- i) Narendra Singh, Ashish Kumar, Anshumali, Chandra Prakash, **Chhavi P. Pandey (2019)**. Study on the satellite and ground based aerosol measurements over Himalayan region. URSI APRSC doi: 10.23919/URSI AP-RASC.2019.8738218.
- ii) Amar Deep, **Chhavi P. Pandey**, Hemwati Nandan, K. D. Purohit **(2018)**. *Analysis of air pollutant in Rishikesh and Dehradun city of Uttarakhand: Influence of surface meteorological parameters*. *Journal of Environment and Bio-Sciences*. vol. 31 (2) 459-462. ISSN: 0973-6913 (Print), ISSN: 0976-3384 (On Line)

- iii) Amar Deep, **Chhavi P. Pandey**, Hemwati Nandan, K. D. Purohit. (2017), Analysis of air pollutant in Rishikesh and Dehradun city of Uttarakhand: Influence of surface meteorological parameters. J. Env. Bio-Sci: Vol. 31 (2) 459-462.
- iv) **Chhavi P. Pandey**, (2017). Study of spectro-temporal variation in paleo-climatic marine proxy records using wavelet transformations. AIP Conference Proceedings 1897, 020019.
- v) **Chhavi P. Pandey**, Denis V. Shulyak, Tanya Ryabchikova, Oleg Kochukhov. (2012) Stratified abundance analysis of CP star HD 103498, ASICS, 6, 225.