

PROFILE

1. **Name :** Mr. Pankaj Biswas S/o Sh. Satyan Biswas
2. **Name of the School / Faculty at SMVDU presently posted:** School of Physics
3. **Initial Date of Joining at SMVDU :** 14-02-2011
4. **Current Designation:** Assistant Professor

5. Qualification:

| S. No. | Qualifications acquired | Discipline / Stream | Year of Passing | University / Institution / College | Division / % age |
|--------|-------------------------|---|------------------------------|------------------------------------|---------------------------------|
| 1 | Ph.D | Physics | Submitted (Aug. 12, 2017) | SMVDU | -- |
| 2 | M.Sc. | Physics | 2001 | University of Jammu | 1 st Div./ 67.88% |
| 3 | B.Sc. | G. English, Physics, Electronics & Mathematics | 1999 | University of Jammu | Distt./ 79.51% |

6. Improvement in Qualification: Ph.D.

| S. No. | Qualifications acquired | Discipline / Stream | Year of Passing | University / Institution / College | Division / % age |
|--------|-------------------------|---------------------|------------------------------|------------------------------------|------------------|
| 1 | Ph.D | Physics | Submitted (Aug. 12, 2017) | SMVDU | -- |

7. Teaching experience:

| S. No | Name of the post | <u>Nature of post held</u> (Whether Adhoc / Contract / Regular) | Name of the organization / University / Institution | Period / Length of Service | | Scale of Pay (in Rs.) | Remarks |
|-------|------------------|---|---|----------------------------|----------|-----------------------|---------|
| | | | | From | to | | |
| 1 | Lecturer | Regular | Trikuta Degree college. | April 2009 | Aug 2009 | Rs. 8000/- +DA | |

| | | | | | | | |
|---|---------------------|---------|--|-----------------------------|----------------------------|-------------------------|--|
| 2 | Lecturer | Adhoc | Deptt. of Physics, University of Jammu | 10 th Sept, 2009 | 11 th Feb, 2011 | Rs 15000/- Consolidated | |
| 3 | Assistant Professor | Regular | SMVD University | 14 th Feb, 2011 | Till Date | 15600-39100 | |

8. Research Experience: 5 yrs.

9. Invited as resource persons in workshops/seminars/Conferences organized by External professional agencies:

- i. Acted as the resource person in two week refresher course in experimental Physics sponsored by three science Academies (IASc Bangalore, INSA New Delhi & NASI Allahabad) held at school of Physics, SMVDU from 10th Dec to 25th Dec, 2014.

10. Attended Workshops/seminars/Conferences recognized by National /International Professional bodies:

- i. 2nd International Conference on Condensed Matter & Applied Physics, ICC-2017 held at Govt. Engineering College, Bikaner during 24-25 Nov., 2017.
- ii. National Conference on Recent Advances in Materials Science and Spectroscopy (NCRAMSS-2017) on Feb. 15-17, 2017 held at SMVDU, Katra, J&K.
- iii. ICT based ONE WEEK Workshop sponsored by NITTTR Chandigarh on "Cloud Computing" held at SMVDU from 5th-9th December 2016.
- iv. International conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET-2016) on Nov. 17-18, 2016 held at SMVDU, Katra, J&K.
- v. ICT based ONE WEEK Workshop sponsored by NITTTR Chandigarh on "Optimization using MATLAB" held at SMVDU from 24th – 28th October, 2016.
- vi. One day Workshop on "Patent Drafting and Filing" in association with TIFAC, DST Govt. of India held at SMVDU on 20th Oct., 2016.
- vii. International Conference on NanoSciTech 2016 on Feb. 18-20, 2016 held at Panjab University, Chandigarh.
- viii. International Conference on Condensed Matter and Applied Physics (ICC 2015) on Oct. 30-31, 2015, held at Govt. Engineering College Bikaner, Rajasthan

- ix. One-week ISTE STTP for Coordinators on “Engineering Physics” conducted under NMEICT by MHRD held at department of Physics IIT Bombay during 7th to 11th Sept., 2015.
- x. Two week IST workshop on “Environmental Studies” at SMVDU Remote Centre conducted by IIT Bombay during 2nd to 12th June 2015.
- xi. Two week IST workshop on “Signals & Systems” at SMVDU Remote Centre conducted by IIT Kharagpur during 2nd to 12th January 2014.
- xii. Science Academics sponsored two week “Refresher course on Experimental Physics at SMVDU from 8th to 25th October, 2013.
- xiii. Two week IST workshop on “Analog Electronics” conducted by IIT Kharagpur during 4th to 14th June 2013.
- xiv. Two week IST Workshop on “Database Management” conducted by IIT Bombay at SMVDU w.e.f. 21st May to 31 May 2013.
- xv. Two day ISTE workshop on “Aakash for Education” at SMVDU Remote Center conducted by IIT Bombay from 10th to 11th Nov, 2012.
- xvi. UGC Sponsored “General Orientation course” from 4th July to 31st July 2012 at University of Jammu.
- xvii. Two weeks ISTE Workshop on “Introduction to Research Methodologies” conducted by IIT Bombay at SMVDU from 25th June, 2012 to 4th July, 2012.
- xviii. One Day “Acquaintance programme on Accelerator based Research” at school of Physics SMVDU on 14th June, 2012.
- xix. UGC Sponsored National Seminar on “Wireless communication and Networks with special emphasis on Adhoc & WSN” at SMVDU from 24th to 25th March, 2012.

11. Awards/Fellowships:

Got **Summer Research Fellowship for Teachers-2014** sponsored by Science Academies’ (**IASc, INSA and NASI**) and worked under project entitled “*To study the Electrical and the Optical Properties of 1D ZnO Nanowires*” under Dr. K. Jeganathan, Professor and Head, Centre for Nanoscience and Nanotechnology, Bharathidasan University, Tiruchirappalli, Tamil Nadu.

12. Presented papers in Workshops/Seminars/Conferences conducted or recognized by

Professional agencies:

- i. Presented a poster entitled “A Novel Orange-red Emitting $\text{NaCaVO}_4:\text{Sm}^{3+}$ Phosphor For Solid State Lighting” in **International Conference on Condensed Matter and Applied Physics** (ICC 2015) on Oct. 30-31, 2015, held at Govt. Engineering College Bikaner, Rajasthan
- ii. Presented a poster entitled “Spectral Studies of $\text{KCaVO}_4:\text{Sm}^{3+}$ Nanophosphor for Potential Applications in Solid State Lighting” in **International Conference on NanoSciTech 2016** on Feb. 18-20, 2016 held at Panjab University, Chandigarh.
- iii. Presented an oral talk on “Spectral Investigations of $\text{KCaVO}_4:\text{Sm}^{3+}$ Nanophosphor for Applications in Solid State Lighting under n-UV Excitation” in **International conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET-2016)** on Nov. 17-18, 2016 held at SMVDU, Katra, J&K.
- iv. Presented an oral talk on “An amber emitting $\text{KSrVO}_4:\text{Sm}^{3+}$ phosphor for solid state lighting” in **National Conference on Recent Advances in Materials Science and Spectroscopy (NCRAMSS-2017)** on Feb. 15-17, 2017 held at SMVDU, Katra, J&K.

13. Publications during the period of service:

a. Research Papers :

- i. **P. Biswas** and K. Jagenathan, “Hydrothermal Synthesis of One Dimensional Mo Doped n-Type ZnO Nanowires on p-Type Si Substrate”, **Mater. Focus 4 (2015) 366-369**.
- ii. **P. Biswas**, Vinay Kumar, O. M. Ntwaeaborwa and H. C. Swart, “Enhanced orange-red emission from $\text{KSrVO}_4:\text{Sm}^{3+}$ nanophosphor possible application in blue light-emitting diode based white LED”, **Mater. Res. Express 2 (2015) 025010**.
- iii. **P. Biswas**, Vinay Kumar, G. Agarwal, O. M. Ntwaeaborwa, H. C. Swart, “ $\text{NaSrVO}_4:\text{Sm}^{3+}$ An n-UV convertible phosphor to fill the quantum efficiency gap for LED applications”, **Ceram. Int. 42 (2016) 2317–2323**.
- iv. **P. Biswas**, Vinay Kumar, Naresh Padha, O. M. Ntwaeaborwa and H. C. Swart, “Synthesis, structural and luminescence studies of $\text{LiSrVO}_4:\text{Sm}^{3+}$ nanophosphor to fill amber gap in LEDs under n-UV excitation”, **J. Mater. Sci: Mater. Electron. 28 (2017) 6159–6168**.

- v. **P. Biswas**, Vinay Kumar, Vishal Sharma, A. K. Bedyal and H. C. Swart, “*Potential of Sm^{3+} doped $LiSrVO_4$ nanophosphor to fill amber gap in LEDs*”, **Physica B:Condens. Matter.** (In Press, Available online 19 July 2017), [doi:10.1016/j.physb.2017.07.040](https://doi.org/10.1016/j.physb.2017.07.040).
- vi. **Pankaj Biswas**, Vinay Kumar, O. M. Ntwaeaborwa, and H. C. Swart, “*A novel orange-red emitting $NaCaVO_4:Sm^{3+}$ phosphor for solid state lighting*”, **AIP Conf. Proc.**, **728** (2016) 020552.

b. Contributory Work (Development of E-Learning Delivery Material):

1. Scilab Coding of the book “**Introduction to Solid State Physics**” by **M.A. Wahab** under the project **Scilab Textbook Companion** funded by NMEICT.
2. Scilab Coding of the book “**Engineering Physics**” by **G. Aruldas** under the project **Scilab Textbook Companion** funded by NMEICT.
3. Scilab Coding of the book “**Solid State Physics Principles And Applications**” by **R. Asokamani** under the project **Scilab Textbook Companion** funded by NMEICT.
4. Scilab Coding of the book “**Engineering Physics**” by **D. C. Ghosh, N. C. Ghosh and P. K. Haldar** under the project **Scilab Textbook Companion** funded by NMEICT.
5. Completed Internship under **Scilab Textbook Companion** by coding solved examples using Scilab from the book- **Modern Physics**, Author: **G. Aruldas and P. Rajagopal**

14. Administrative Contribution to the University:

Membership of Committees -

- i. Member, Mentor & Guardianship Committee
- ii. Member, M.Sc. Physics Admission Committee
- iii. Member, Event Management Committee in DST sponsored 4th INSPIRE
- iv. Member, Camp Bag and Memento Committee in DST sponsored 5th INSPIRE Camp.
- v. Member, M.Sc. Physics Laboratory Equipments verification Committee.
- vi. Faculty Advisor, Nature Club.
- vii. Member, Hospitality Committee, Titiksha-2012.
- viii. Member, Inspection Committee, IUAC sponsored research project (PR-52).
- ix. Member, School Academic Affairs Committee.
- x. External Member, Physical verification Committee in SBT Laboratory.

- xi. Member, Budget Committee, 66th Refresher Course in Experimental Physics.
- xii. Member, Maintenance & Housekeeping Advisory Committee.
- xiii. Member, Anti-Ragging Squad for the Academic year 2014-15.
- xiv. Escort member, M.Sc. Physics degree recipients in 3rd and 4th convocation at SMVDU.
- xv. Member, Nano-technology Cell
- xvi. Faculty In-charge, Library Affairs
- xvii. Member, Innovation (Tinkering) Laboratory at SMVDU.
- xviii. Department Coordinator, Student Seminar.

15. Extension Work (Seminars/Workshops/Conferences organized):

- i. Workshop coordinator, IIT Bombay sponsored Two Week ISTE STTP on Engineering Physics from 08-18 Dec., 2015.