



## **Dr. Pruthvi Rani K S**

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Department of Physics  
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Education in Brief : B.Sc.Ed, M.Sc, Ph.D  
Area of Specialization : Nuclear Physics, Environmental Radioactivity, Atmospheric Physics

### **EDUCATIONAL QUALIFICATIONS:**

1. B.Sc.Ed. (Physics, Chemistry, Mathematics) from Regional Institute of Education, University of Mysore, Mysuru (2008)
2. M.Sc. in Physics with **3<sup>rd</sup> Rank** from University of Mysore, Mysuru (2010)
3. PhD in Physics, University of Mysore, Mysuru (2015)  
Thesis titled: "Vertical profile study of atmospheric electrical conductivity related to radon decay products close to ground at Mysore City" under the Guidance of Prof. L Paramesh.

### **AFFILIATIONS:**

- Life member of Indian Science Congress Association.
- Life member of Indian Society for Radiation Physics.

### **List of Publications refereed Journals: 10**

1. **Pruthvi Rani K.S**, Paramesh L and Chandrashekara M. S. Diurnal variations of  $^{218}\text{Po}$ ,  $^{214}\text{Pb}$ , and  $^{214}\text{Po}$  and their effect on atmospheric electrical conductivity in the lower atmosphere at Mysore. "*Journal of Environmental Radioactivity*". (Elsevier Publications, USA) No. 138, 438-443, (2014). (Impact Factor – 2.047)
2. **K. S. Pruthvi Rani**, M. S. Chandrashekara and L. Paramesh. Studies on spatial variations of radon and its progeny inside a dwelling, Mysore city, India. "*American International Journal of Research in Science, Technology, Engineering &*

*Mathematics*". ISSN (Print): 2328-3491, ISSN (Online): 2328-3580, ISSN (CD-ROM): 2328-3629 7(3), pp. 234-237, (June- August, 2014).

3. **K. S. Pruthvi Rani**, M. S. Chandrashekara and L. Paramesh. Vertical profile of radon and its progeny concentrations and its effect on atmospheric electrical conductivity near the surface of the earth. "*International Journal of Advanced Scientific and Technical Research*". ISSN 2249-9954. 4 (4), pp 119-129, (2014).
4. KM Nagaraju, MS Chandrashekara, **KS Pruthvi Rani**, L Paramesh. Measurement of gamma natural background radiation in Chamaraja Nagar district, Karnataka state, India. "*Radiation Protection and Environment, Med Know Publications*". ISSN 0972-0464. 35(2), pp 73-76, (2012).
5. Nagaraju KM, Chandrashekara MS, **Pruthvi Rani**, Rajesh BM, Paramesh L. Radioactivity measurements in the environment of Chamaraja Nagar area, India. "*Radiat Prot Environ. Med Know Publications*". ISSN 0972-0464. 36, 10-13, (2013).
6. K.M. Nagaraju, M.S. Chandrashekara, **K. S. Pruthvi Rani** and L. Paramesh. Estimation of radiation dose due to uranium in water to the public in Chamarajanagar district, Karnataka State, India. "*American International Journal of Research in Science, Technology, Engineering & Mathematics*". ISSN (Print): 2328-3491, ISSN (Online): 2328-3580, ISSN (CD-ROM): 2328-3629 7(3), pp. 224-228, (June- August, 2014).
7. M.S.Chandrashekara, K.M. Nagaraju, **K. S. Pruthvi Rani**, L.Paramesh. Natural Radionuclide in soil samples and radiation dose to the population of Chamarajanagar district, Karnataka State, India. "*International Journal of Advanced Scientific and Technical Research*". (ISSN 2249-9954), Issue 4 volume 4, pp. 466-474, July-August 2014.
8. M.S.Chandrashekara, **K.S.Pruthvi Rani**, P.Vipin Kumar, K.M.Nagaraju. Studies on Gross Alpha Activity in Ground Water Samples of Mandya District, Karnataka State, India. "*International Journal of Annals of Natural Sciences*" September 2017. ISSN: 2455-667X Volume 3(3), pp 76-80
9. Chandrashekara M.S, Nagarju K.M, **Pruthvi Rani K. S**, Vipin Kumar P. Studies on Radium Concentration in Natural Water of Chamarajanagar District, Karnataka State, India. "*International Journal of Emerging Technology and Engineering*" January 2018. ISSN: 2259-459, volume 8, pp 299-300
10. Studies on the concentration of  $^{226}\text{Ra}$  and  $^{222}\text{Rn}$  in drinking, water samples and effective dose to the population of Davanagere district, Karnataka State, India. M. Hidayath, M.S. Chandrashekara, **K.S. Pruthvi Rani** and S.N. Namitha, "*Journal of Radioanalytical and Nuclear Chemistry*", Springer Publications, May 2022, 331(4) pp 1923-1931

## BOOKS PUBLISHED:

1. Indoor Radon at Mysore: An overview, Author: **K S Pruthvi Rani**, Published by Mysore Book House, # 471, D. Subbaiah Road, Near Ramaswamy Circle, K.R.Mohalla, Mysore-570024. ISBN 978-93-85629-23-5, 2016.
2. Variations of atmospheric electrical conductivity at Mysore, Author: **K S Pruthvi Rani**, Published by International E-Publication, 427, Palhar Nagar, RAPTC, VIP Road, Indore – 452005 (MP) India. (Communicated).

## Papers published in Conference Proceedings:

1. **K S Pruthvi Rani**, M S Chandrashekhara, L Paramesh. Spatial distribution of radon and its short-lived decay products inside a dwelling. *“Proceedings of the National Symposium on Materials Science and Engineering”*. ISBN-978-81-929372-0-5, 24-27, (2014).
2. **K S Pruthvi Rani**, M S Chandrashekhara, L Paramesh. Diurnal and vertical variations of atmospheric electrical conductivity and radioactivity near the ground surface at Mysore, India. *“Proceedings of the National Symposium on Materials Science and Engineering”*. ISBN-978-81-929372-0-5, 28-21, (2014).
3. **Pruthvi Rani K.S.**, Chandrashekhara M.S., Paramesh L. Diurnal variations of Global Electric Circuit parameters at Mysuru. ( $12^{\circ}N$ ), India. *“Proceedings of National Conference on Recent Trends in Physics, Mathematics and Engineering”*. ISBN 978-81-930115-1-5, pp 52-5, (Feb 2015).
4. T. S. Shashikumar, B. C. Shivakumar, **K. S. Pruthvi Rani**, M. S. Chandrashekhara and L. Paramesh. Studies on variations of  $^{222}\text{Rn}/^{220}\text{Rn}$  and their decay products in few villages around Mysore city, India. *“Current Prospectives on Environmental Protection, BS Publications, India”*. ISBN-978-81-7800-287-3, 163-176, (2013).
5. K M Nagaraju, M. S. Chandrashekhara, **K. S. Pruthvi Rani**, and L. Paramesh. Assessment of radon exhalation rate in soil samples of few locations in Chamaraja Nagar district, Karnataka state, India. *“Current Prospectives on Environmental Protection, BS Publications, India”*. ISBN-978-81-7800-287-3, 167 -170, (2013).
6. K M Nagaraju, M S Chandrashekhara, **K S Pruthvi Rani**, L Paramesh. Studies on radon, radium and uranium concentrations in water samples of few locations of Chamaraja Nagar District, South Karnataka, India. *“Proceedings of the National Symposium on Materials Science and Engineering”*. ISBN-978-81-929372-0-5, 36-39, (2014).
7. Kavitha E, **Pruthvi Rani K.S.**, Chandrashekhara M.S, Paramesh L.  $^{226}\text{Ra}$  and  $^{210}\text{Po}$  concentration in drinking water of Cauvery River basin south interior Karnataka State, India. *“Proceedings of National Conference on Recent Trends in Physics, Mathematics and Engineering”*. ISBN 978-81-930115-1-5, pp 20-23, (20-21 Feb 2015).
8. K. M. Nagaraju, **K.S.Pruthvi Rani**, M. S. Chandrashekhara, B.M. Rajesh and Paramesh L. Natural radioactivity levels in soil and rock samples of some areas around Chamarajnagar, Karnataka, India. *Proceedings of NSRP-19*, pp 535-537.

## Papers presented in Symposiums/Conferences.

1. Diurnal and vertical variations of atmospheric electrical conductivity and radioactivity near the ground surface at Mysore, India. **K S Pruthvi Rani**, M S Chandrashekara, L Paramesh National Symposium on Materials Science and Engineering. JSS College, Mysuru, 21-22, March 2014.
2. Spatial distribution of radon and its short-lived decay products inside a dwelling. **K S Pruthvi Rani**, M S Chandrashekara, L Paramesh. National Symposium on Materials Science and Engineering. JSS College, Mysore, 21-22, March 2014.
3. Diurnal variations of Global Electric Circuit parameters at Mysuru. (12°N), India. **Pruthvi Rani K.S.**, Chandrashekara M.S., Paramesh L. National Conference on Recent Trends in Physics, Mathematics and Engineering. Sharada Vilas College, Mysuru, 20-21, Feb 2015.
4. Diurnal variations of  $^{218}\text{Po}$ ,  $^{214}\text{Pb}$ , and  $^{214}\text{Po}$  and their effect on atmospheric electrical conductivity in the lower atmosphere at Mysore. **K S Pruthvi Rani**, L Paramesh and M S Chandrashekara. 2<sup>nd</sup> International Conference on Po and Radioactive Pb Isotopes held during 10-13 February 2013 organized by Mangalore University, Mangalore.
5. Atmospheric Electrical Conductivity Related to Radon Concentration at Mysore, India. **K S Pruthvi Rani**, M S Chandrashekara, and L Paramesh. 9th International Symposium on the Natural Radiation Environment. Hirosaki University, Aomori, Japan 23-26, September 2014.
6. Studies on radon in soil gas, radon exhalation rate from the ground surface and radon vertical profile in the atmosphere near the ground surface at Mysore City, India. **K S Pruthvi Rani**, M S Chandrashekara, and L Paramesh. 9th International Symposium on the Natural Radiation Environment. Hirosaki University, Aomori, Japan 23-26, September 2014.
7. Diurnal variations of  $^{218}\text{Po}$ ,  $^{214}\text{Pb}$ , and  $^{214}\text{Po}$  and their effect on atmospheric electrical conductivity in the lower atmosphere at Mysore. **K S Pruthvi Rani**, L Paramesh and M S Chandrashekara. 2<sup>nd</sup> International Conference on Po and Radioactive Pb Isotopes held during 10-13 February 2013 organized by Mangalore University, Mangalore.
8. ವಾತಾವರಣದ ವಿಕಿರಣಶೀಲ ವಸ್ತುಗಳ ದೈನಂದಿನ ಬದಲಾವಣೆಗಳು ಮತ್ತು ಭೂಮಿಯ ಮೇಲ್ಮೈ ವಾಯುಮಂಡಲದ ವಿದ್ಯುತ್ ವಾಹಕತೆಯ ಮೇಲೆ ಇವುಗಳ ಪರಿಣಾಮ. **K S Pruthvi Rani**, M S Chandrashekara, and L Paramesh, 10<sup>th</sup> Kannada Vijnana Sammelana, University of Mysore, Mysore, Sept 15-17, 2014.
9. ಭೂಮಿಯ ಸಮೀಪದಿಂದ ೨೦೦ ಮೀಟರ್ ಎತ್ತರದವರೆಗೆ ವಾಯುಮಂಡಲದ ವಿದ್ಯುತ್ ವಾಹಕತೆ ಮತ್ತು ನೈಸರ್ಗಿಕ ವಿಕಿರಣಶೀಲ ವಸ್ತುಗಳ ಬದಲಾವಣೆಗಳು. **K S Pruthvi Rani**, M S Chandrashekara, and L Paramesh, 10<sup>th</sup> Kannada Vijnana Sammelana, University of Mysore, Mysore, Sept 15-17, 2014.
10. Studies on Radium and Radon Concentrations in Drinking water Samples of Chamarajanagar District, Karnatka State, India. M.S. Chandrashekara, K.M. Nagaraju, **K S Pruthvi Rani** and L Paramesh. 9th International Symposium on the Natural Radiation Environment. Hirosaki University, Aomori, Japan 23-26, September 2014.
11. Studies on  $^{226}\text{Ra}$  Concentration and  $^{222}\text{Rn}$  Exhalation rate from Soil and Rock Samples in Chamarajanagar District, India. K.M. Nagaraju, M.S. Chandrashekara, **K S Pruthvi Rani**, L Paramesh. 9th International Symposium on the Natural Radiation Environment. Hirosaki University, Aomori, Japan 23-26, September 2014.

12. Spatial distribution of radon and progeny inside a dwelling at Mysore city, India. M S Chandrashekara, **K S Pruthvi Rani**, L Paramesh. 9th International Symposium on the Natural Radiation Environment. Hirosaki University, Aomori, Japan 23-26, September 2014.
13. Studies on natural radioactivity and radiation levels at Mysore City, India. Chandrashekara M. S, **Pruthvi Rani K.S**, Rajesh B. M and Paramesh L. International conference on radiation environment assessment, measurement and its impact. April 12-14, 2012, Babasaheb Bhimrao Ambedkar University, Lucknow.
14. Natural radioactivity levels in soil and rock samples of some areas around Chamarajnagar, Karnataka, India. K. M. Nagaraju, **K.S.Pruthvi Rani**, M. S. Chandrashekara, B.M. Rajesh and Paramesh L, 19th National Symposium on Radiation Physics "NSRP-19" on 12-14, December 2012 held at Mamallapuram, Chennai, India.
15. Temporal variations of atmospheric electrical conductivity related to radioactivity at Mysore, M S Chandrashekara, **K S Pruthvi Rani**, and L Paramesh, 39th COSPAR Scientific Assembly. Held 14-22 July 2012, in Mysore, India
16. Studies on trace gases and particulate matters in Mysore city, India, M S Chandrashekara, N Ragini, **K S Pruthvi Rani**, L and Paramesh, 39th COSPAR Scientific Assembly. Held 14-22 July 2012, in Mysore, India.
17. Assessment of radon exhalation rate in soil samples of few locations in Chamaraja Nagar District, Karnataka State, India. K M Nagaraju, M S Chandrashekara, **K S Pruthvi Rani**, and L Paramesh, *Workshop cum Eighteenth National Symposium on Environment (NSE-18)* on 11-13 March 2013 held at JNTUA, Ananthapur, AP, India.
18. Studies on radon, radium and uranium concentrations in water samples of few locations of Chamaraja Nagar District, South Karnataka, India. K M Nagaraju, M S Chandrashekara, **K S Pruthvi Rani**, L Paramesh. National Symposium on Materials Science and Engineering. JSS College, Mysore, 21-22, March 2014.
19. ಚಾಮರಾಜನಗರ ಪ್ರದೇಶದ ನೈಸರ್ಗಿಕ ಮಣ್ಣು ಮತ್ತು ಕಲ್ಲಿನ ಮಾದರಿಗಳಿಂದ ರೇಡಾನ್ ಹೊರ ಸೂಸುವ ದರದ ಕುರಿತು ಒಂದು ಅಧ್ಯಯನ. K M Nagaraju, M S Chandrashekara, **K S Pruthvi Rani**, and L Paramesh, 10<sup>th</sup> Kannada Vijnana Sammelana, University of Mysore, Mysore, Sept 15-17, 2014.
20. ಭಾರತದ ದಕ್ಷಿಣ ಕರ್ನಾಟಕದಲ್ಲಿ ಚಾಮರಾಜನಗರ ಜಿಲ್ಲೆಯ ಕೆಲವು ಸ್ಥಳಗಳಲ್ಲಿನ ನೀರಿನ ಮಾದರಿಗಳಲ್ಲಿ ರೇಡಾನ್, ರೇಡಿಯಂ, ಮತ್ತು ಯುರೇನಿಯಂಗಳ ಸಾಂದ್ರತೆಗಳ ಕುರಿತು ಅಧ್ಯಯನ. K M Nagaraju, M S Chandrashekara, **K S Pruthvi Rani**, and L Paramesh, 10<sup>th</sup> Kannada Vijnana Sammelana, University of Mysore, Mysore, Sept 15-17, 2014.
21. ಚಾಮರಾಜನಗರದ ಪರಿಸರದಲ್ಲಿ ನೈಸರ್ಗಿಕ ಹಿನ್ನೆಲೆ ವಿಕಿರಣಶೀಲತೆಯ ಪ್ರಮಾಣಗಳು. M S Chandrashekara, K M Nagaraju, **K S Pruthvi Rani**, and L Paramesh, 10<sup>th</sup> Kannada Vijnana Sammelana, University of Mysore, Mysore, Sept 15-17, 2014.
22. Studies on diurnal variation of aerosol number and size distribution in Mysuru City (12° N, 76° E), India has been accepted for presentation at the Asian Aerosol Conference to be held during June 12-16, 2022 in Taipei, Taiwan.
23. Vertical profile studies on atmospheric electrical conductivity related to aerosols and radioactivity near the ground surface at Mysuru City, India, has been accepted for presentation at the **17th International Conference on Atmospheric Electricity (ICAE 2022)** to be held **June 19-24, 2022** in Tel Aviv, Israel.

## **Seminars/Workshops Participated:**

1. Two day 'Science Academies' Lecture Workshop on Some Topics in "Biophysics", Organised by University of Mysore, Department of Studies in Physics, Manasagangotri, Mysuru, held during 16-17, September 2010.
2. 19<sup>th</sup> National Symposium on Radiation Physics, Organised by Indian Society for Radiation Physics at Radisson Blue Resort Temple Bay, Mamallapuram, held during 12-14, December 2012.
3. One-day technical Seminar on "Nuclear Energy-Environment and Safety" (NEEDS-2012), jointly organized by Indian Nuclear Society, Mysuru and Department of Studies in Physics, University of Mysore held at DOS in Physics, University of Mysore, Manasagangotri, Mysuru on 3<sup>rd</sup> March 2012.
4. Eighteenth National Symposium on Environment (NSE-18), organized by Bhabha Atomic Research Centre, Mumbai, held at Department of Chemical Engineering Jawaharlal Nehru Technological University, Anantpur, during 11-12 March, 2013.
5. Technical Seminar on Radiation Technologies for Food Processing, Agriculture and Water Resources Management, jointly organized Indian Nuclear Society, Mysuru and Board of Research in Nuclear Sciences, Mumbai, held at Rani Bahadur Auditorium, University of Mysore on 30<sup>th</sup> March, 2013.
6. All India Seminar on "Nano Technology for Energy, Environment and Health", held at The Institute of Engineers (India), Mysuru Local Centre, JLB Road, Mysuru, during 19-20 October, 2013.
7. National Conference on Advances in Engineering and Technology NCAET-2013, held at Ekalavya Institute of Technology, Ummathur, Chamrajanagar, during 7-11 November, 2013.
8. One-day Workshop on "Computational Materials Science", organized by Department of Studies in Physics, University of Mysore, Manasagangotri, Mysuru, held on 24<sup>th</sup> January 2014.
9. KSTA Regional Conference on "Science and Technology for Education and Health Care", jointly organized by Karnataka Science and Technology Academy and JSS College of Arts, Commerce and Science held at JSS College of Arts, Commerce and Science, Ooty Road, Mysuru, during 21-22 February, 2014.
10. One-day Technical Seminar on "RADIOACTIVITY-Natural and Manmade" organized by Indian Nuclear Society, Mysuru and Vidya Vikas Institute of Engineering and Technology held at VVIET Campus, Mysuru on 15<sup>th</sup> March, 2014.
11. One day Faculty Development Program on 'SHOCK WAVES AND MATERIAL SCIENCE', organized by Vidya Vikas Institute of Engineering and Technology, Mysuru in association with Physics Association, Mysuru held at VVIET Campus, Mysuru on 23<sup>rd</sup> August, 2014.
12. Seminar on 'Benefits of Nuclear and Material Sciences in day-to-day life(BNMS 2015)', organized jointly by Indian Nuclear Society, Mysuru and University of Mysore held at Rani Bahadur Auditorium, Mysuru during 20-22<sup>nd</sup> August, 2015.
13. 103<sup>rd</sup> Indian Science Congress, organized by The Indian Science Congress Association, 14, Dr. Biresh Guha Street, Kolkata, held at University of Mysore, Mysuru, during 3-7<sup>th</sup> January, 2016.
14. "One-day Seminar on Radiation Physics" held at Department of Studies in Physics, University of Mysore, Mysuru on 14<sup>th</sup> May, 2016.