# **Faculty Profile - Department of Applied Physics**



Name : **Dr.D. Khanna** 

Designation : Assistant Professor

Office Address : Room No.EI 304, Department of Applied Physics, SSAMM

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Area of Specialization: Environmental and Medical Radiation Physics

### PROFESSIONAL EXPERIENCE: (TOTAL YEAR OF EXPERIENCE)

Title of the Profession	Employer	Duration
Assistant Professor	Karunya Institute of	12 Years, 2 Months (as on
	Technology and Sciences,	31.08.2021)
	Coimbatore	

# ACADEMIC QUALIFICATION (LIST FROM HIGHEST TO LOWEST DEGREE)

Degree	<b>Board/University</b>	Year of	Class/Grade	Subjects
		passing		
Ph. D.	Bharathiar	2009	Highly	Physics
	University		Recommended	
M.Sc	Bharathiar	2003	5.55/6.00 CGPA	Physics
	University			
B.Sc	Manonmanium	2001	82.5%	Physics
	Sundaranar			
	University			
+2	Higher Secondary	1998	87.58%	Physics,
	Board, Tamil			Chemistry,
	Nadu			Maths, Biology
10 <sup>th</sup>	SSLC, Tamil	1996	94.8%	
	Nadu			

## **SUBJECT TAUGHT**

Undergraduate	Postgraduate
Applied Physics	Nuclear and Particle Physics
Engineering Physics	Mathematical Physics
Applied Physics Lab	Heat and Thermodynamics
Astronomy and Astrophysics	Electricity and Magnetism
	Heat and Optics Lab
	Advanced Physics Lab

# PROJECTS GUIDED

Ph.D						
Name of the Scholar/Student	Title of the Project	Status (Completed/ Pursuing)	Year of Ph.D Award			
Raghavendra Holla	Investigation of technical and dosimetric aspects of respiratory motion and a new film slope method	Completed	2020			
Mohandass P	Evaluation of different dosimetric parameters in volumetric modulated arc therapy treatment planning	Completed	2020			
Moorthi T	Dosimetric Evaluation and Comparison of Volumetric Modulated Arc Therapy with Flattened and Unflattened Beams.	Pursuing				
Hridya VT	Role of Image Guidance to Assess the Dosimetric Impact of Setup Errors in Radiotherapy	Pursuing				
Aswathi Raj	Commissioning of True Beam STx: A Qualitative and Quantitative Dosimetric Analysis	Pursuing				
Boopathi M	Clinical and Dosimetric Study on High End Treatment Techniques in Radiotherapy	Pursuing				
Saravanan C	Medical Radiation Physics	Pursuing				
Bharath P	Medical Radiation Physics	Pursuing				
	M.Sc					
Has completed 8 M	M.Sc projects so far.					

# **DETAILS OF THE PUBLICATIONS**

# INTERNATIONAL JOURNALS

- Measurement of Activity concentrations of <sup>40</sup>K, <sup>238</sup>U and <sup>232</sup>Th in soil samples of Agastheeswaram Taluk, Kanyakumari District, India.
  - D.Khanna, J.Malathi, G.M.Brahmanandhan and S.Selvasekarapandian
  - International congress series, 1276 (2005) 319-320

2. Thoron levels in the dwellings of high background radiation area located around Kudankulam nuclear power plant

J.Malathi, S.Selvasekarapandian, G.M.Brahmanandhan, D.Khanna, V.Meenakshisundaram, S.Santhanam, S.Balasundar, B.Dhanalakshmi and T.V.Ramachandran

**Atmospheric Environment 42 (2008) 5494-5498** 

3. Natural Radioactivity and Indoor radiation measurements in Buildings / Building materials in Gobichettipalayam Town

G.M.Brahmanandhan, J.Malathi, D.Khanna, S.Selvasekarapandian, N.Nidhya, R.Usharani, M.T.Jose and V.Meenakshisundaram

Journal of radioanalytical and nuclear chemistry 274 (2007) 373-377

4. Natural Radioactivity in the soil samples in and around Kudankulam, Nuclear Power Plant site

G.M.Brahmanandhan, S.Selvasekarapandian, J. Malathi, D.Khanna, M.P.Rajan and A.G.Hegde

Journal of radioanalytical and nuclear chemistry 274 (2007) 361-366

5. Background Radiation Study in Coimbatore City, Tamilnadu J.Malathi, S.Krishnaveni, G.M.Brahmanandhan, D.Khanna, V.Meenakshisundaram, and R.Santhanam
V.Gajendran
R.Mathiyarasu

Journal of radioanalytical and nuclear chemistry 274 (2007) 355-359

6. Study of radionuclide distribution around Kudankulam nuclear power plant site (Agastheeswaram Taluk of Kanyakumari district, India)
J.Malathi, S.Selvasekarapandian, G.M.Brahmanandhan and D.Khanna
Radiation Protection Dosimetry, Vol: 113, No: 4 (2005) 415-420

7. Population dose from indoor gamma exposure in the dwellings around Kudankulam nuclear power plant

G.M.Brahamanandhan, J.Malathi, D.Khanna, S.Selvasekarapandian, V.Meenakshisundaram, S.Santhanam, M.P.Rajaj and A.G.Hegde

Radiation Protection Dosimetry 129 (2008) 481-485

8. Seasonal variation of indoor gamma dose and radon, thoron measurement in the dwellings around Kudankulam Nuclear Power Plant (Radhapuram taluk, Tirunelveli district)

G.M.Brahamanandhan, S.Selvasekarapandian, J.Malathi, D.Khanna, V.Meenakshisundaram, S.Santhanam, S.Balasundar and B.Dhanalakshmi Indoor Built and Environment 17 (2008) 384-389

9. Gamma dose measurement in dwellings of Agastheeswaram taluk of Kanyakumari district, lying 30 km radius from Kudankulam Nuclear Power Plant site

J.Malathi, S.Selvasekarapandian, G.M.Brahmanandhan, D.Khanna,

V.Meekshisundaram, M.T.Jose. M.P.Rajan and A.G.Hegde

Environmental Monitoring Assessment 137 (2008) 163-168

10. Natural radioactivity in the soil samples in and around Kudankulam nuclear power plant site

G.M.Brahmanandhan, D.Khanna, J.Malathi and S.Selvasekarapandian International congress series, 1276 (2005) 317-318

11. Study of primordial radionuclide distribution in sand samples of Agastheeswaram Taluk of Kanyakumari district, India J.Malathi, G.M.Brahmanandhan, D.Khanna and S.Selvasekarapandian International congress series, 1276 (2005) 321-322

12. Study of Background Radiation From Soil Samples of Udumalpet Taluk of Coimbatore District, India

R.Sarida, G.M.Brahmanandhan, J.Malathi, D.Khanna, S.Selvasekarapandian, R.Amutha, V.Meenakshisundaram and V.Gajendran

International congress series, 1276 (2005) 329-330

13. Primordial radionuclides concentrations in the beach sands of east coast region of Tamilnadu, India

K.S.Lakshmi, S.Selvasekarapandian, D.Khanna and V.Meenakshisundaram International congress series, 1276 (2005) 323-324

- 14. Study of Background radiation from soil samples in Pollachi Taluk, Tamilnadu, India R.Amutha, G.M.Brahmanandhan, J.Malathi, D.Khanna, S.Selvasekarapandian, R.Sarida, V.Meenakshisundaram and V.Gajendran International congress series, 1276 (2005) 331-332
- 15. Investigation of internal target volumes using device and deviceless four-dimensional respiratory monitoring systems for moving targets in four-dimensional computed tomography acquisition

Holla R, Khanna D, Barsing S, Pillai BK, Ganesh T.

Journal of Medical Physics 2019; 44:77-83.

16. An experimental slope method for a more accurate measurement of relative radiation doses using radiographic and radiochromic films and its application to megavoltage small-field dosimetry

Holla R, Khanna D, Pillai BK, Jafar Ali K V, Renil Mon P S, Clinto C O, Ganesh T. **Journal of Medical Physics 2019; 44:145-55.** 

17. Validation of a software upgrade in a Monte Carlo treatment planning system by comparison of plans in different versions

Mohandass, P., Khanna, D., Manigandan, D., Bhalla, N. K., & Puri, A.

Journal of Medical Physics, (2018) 43(2), 93.

18. Study to compare the effect of different registration methods on patient setup uncertainties in cone-beam computed tomography during volumetric modulated arc therapy for breast cancer patients

Mohandass, P., Khanna, D., Kumar, T. M., Thiyagaraj, T., Saravanan, C., Bhalla, N. K., & Puri, A.

Journal of Medical Physics, (2018) 43(4), 207.

19. Dosimetric impact of statistical uncertainty on Monte Carlo dose calculation algorithm in volumetric modulated arc therapy using Monaco TPS for three different clinical cases

Mohandass, P., Khanna, D., Durai, M., Bhalla, N. K., & Puri, A.

Reports of Practical Oncology & Radiotherapy, (2019) 24(2), 188-199.

20. Impact of multicriteria optimization on 6MV flattening filter free volumetric modulated arc therapy for craniospinal Irradiation.

Mohandass, P., Khanna, D., Selvaganapathi, A., Nishaanth, B., Bhalla, N. K., & Puri, A. Blessy, M.

Iranian Journal of Medical Physics, (2020) Vol.17 No.6, 386-393

21. Impact of three different matching methods on patient setup error in x-ray volumetric imaging for head and neck cancer

Mohandass P, D.Khanna, B.Nishaanth, C. Saravanan, Narendra Bhalla, Abhishek Puri, Blessy Mohandass

Reports of Practical Oncology & Radiotherapy 25 (2020) 906-912

#### **BOOK CHAPTER**

➤ Subramaniyan Selvasekarapandian, Jeyapandian Malathi, Gopalganapathi M. Brahmanandhan and David Khanna, *Background Radiation Dose to the Population Around the Kudankulam Nuclear Power Plant*, Radiation Health Risk Sciences, In: Proceedings of the First International Symposium of the Nagasaki University Global COE Program "Global Strategic Center for Radiation Health Risk Control", (eds. Masahiro Nakashima, Noboru Takamura, Kunihiro Tsukasaki, Yuji Nagayama and Shunichi Yamashita), ISBN No: 978-4-431-88658-7 (Print) 978-4-431-88659-4 (Online) (2009) 248-253

#### ACADEMIC AND ADMINISTRATIVE RESPONSIBILITIES

- 1. Admissions Officer, Karunya University from October 2010 to October 2012
- 2. Hostel SRA and Warden (from July 2009 to June 2012)
- 3. Head of the Programme, Pre-Engineering Programme (2014-2015 Academic Year)
- 4. Placement Coordinator, Website Coordinator for Department of Physics
- 5. Faith and Science Dialogue Club Coordinator, Astronomy Club Coordinator and Journalism Club Co-coordinator.

#### AWARDS WON

 a. Best Oral Paper presentation Award, National Conference on Luminescence, held at PES Institute of Technology, Bangalore during 08.01.13 to 10.01.13

- b. Junior and Senior Research Fellowships by Board of Research in Nuclear Sciences, Department of Atomic Energy.
- c. Won Second Prize at National Level in 11<sup>th</sup> All India Nuclear Essay competition held by Department of Atomic Energy.
- d. Best Outgoing Student in B.Sc Physics and in 10<sup>th</sup> standard
- e. Finalist in State Level Elocution, Essay and Science Exhibition Competitions

#### WORKSHOP/SYMPOSIUM/CONFERENCE/SEMINARS ORGANIZED

- 1. First International Webinar Series on Astronomy and Astrophysics on 29.05.2020, 19.06.2020, 08.07.2020 and 24.07.2020
- 2. First International Webinar Series on Indian Nuclear Power Programme on 08.06.2021, 15.06.2021 and 22.06.2021
- 3. Second International Webinar Series on Astronomy and Astrophysics on 24.06.2021, 28.06.2021, 01.07.2021, 08.07.2021, 15.07.2021 and 22.07.2021

#### **INVITED TALK DELIVERED**

"Journey Across Cosmos" and "Enchanting Particle Physics" Two day state level symposium PHYSTIVAL 2010 at Department of Physics, V.O.Chidambaram College, Thoothukudi during 23 and 24, August, 2010

"The Big and the Beautiful – A Journey across the Cosmos", on 31.01.2014 at Department of Physics, Aditanar College of Arts and Sciences, Tiruchendur, Tamil Nadu.

"Career Guidance for Physics Students" on 29.12.2016 at Department of Physics, Aditanar College of Arts and Sciences, Tiruchendur, Tamil Nadu.

#### PARTICIPATION/PRESENTATION IN

#### WORKSHOP/SEMINAR/CONFERENCE/SYMPOSIUM/COLLOQUIUM

#### AT SCHOOL LEVEL

- 1. District Science Fair, Tuticorin District, Tamil Nadu, India during 22-24, August, 1996 with special reference to space science.
- 2. The Twenty Third Jawaharlal Nehru State Level Science Exhibition, Salem, Tamil Nadu during 21.01.1997 to 25.01.1997 with special reference to space science.
- 3. One day Seminar on National Safety and Science Day at Heavy Water Plant, Department of Atomic Energy, Tuticorin during the first week of March 1997, 2000 and 2001.

#### AT UNDERGRADUATE LEVEL

- 4. Workshop on Short story writing organized by Nazareth Margoschis College, Nazareth on 20.02.1999
- 5. Two Days Seminar on Applications of Radioisotopes and Radiation in Industries, District Science Center, Tirunelveli District during 22-23, March, 1999
- 6. Founder's Day Lecture and Programme on Indian Nuclear Power Development, Bhabha Atomic Research Centre, Mumbai on 29.10.1999
- 7. Science Exhibition on the occasion of National Safety & Science Day at Heavy Water Plant, Department of Atomic Energy, Tuticorin, March, 2000 with special reference to space science.

#### **AT POSTGRADUATE LEVEL**

- 8. National Workshop on "Solid State Ionics and Its Applications" Held at Bharathiar University, Coimbatore, 18-23 January 2002.
- 9. National Symposium on Instrumentation (NSI-27) Held at Bharathiar University, Coimbatore, during 27<sup>th</sup>-29<sup>th</sup> November 2002.
- 10. 17<sup>TH</sup> National Symposium on Plasma Science and Technology (Plasma 2002) Dec 16-19, 2002, Bharathiar University, Coimbatore.

#### AT RESEARCH

- 11. BRNS 15<sup>th</sup> National Symposium on Radiation Physics, November 12-14, 2003, Held at Bhabha Atomic Research Centre, Mumbai
- 12. International Conference on Luminescence and Its Applications, 2004, February 9-12 Held At Bhabha Atomic Research Centre, Mumbai, India.
- 13. International Workshop on High Background Radiation Area (HBRA) Study on China, India, and Iran, September 6, 2004, Osaka, Japan
- 14. 6<sup>th</sup> International Conference on High Levels of Natural Radiation and Radon Areas, September 6-10, 2004, Held at Kinki University, Osaka, Japan.
- 15. 15<sup>th</sup> National Conference cum Workshop on Solid State Nuclear Track Detectors, DAV College, Amritsar, Punjab held during 1-3.11.2004
- 16. National Conference on Luminescence and its Applications, Bangalore University, Bangalore held during 2-4.02.2005
- 17. One day Seminar on World Year of Physics held at Bharathiar University, Coimbatore on 17.03.2005
- 18. National seminar on atomic energy, environment and human welfare, held at P.R. Engineering College, Vallam, Thanjavur during 25-26. August, 2005
- 19. International Conference on Application of Radiotracers in Chemical, Environmental and Biological Sciences, held at Saha Institute of Nuclear Physics, Kolkata during 23-27, January, 2006
- 20. Training programme in Environmental Statistics, held at Manonmanium Sundaranar University, Tirunelveli during 20-24 February, 2006
- 21. Seventh National Seminar on Solid State Ionics, held at Bharathiar University, Coimbatore during 6-9, June, 2006
- 22. 10<sup>th</sup> Asian Conference on Solid State Ionics, held at Peradeniya University, Kandy, Sri Lanka during 12-16, June 2006

- 23. National Conference on Luminescence and its applications held at Bharathiar University, Coimbatore during January, 2007
- 24. One day Seminar on nanotechnology and its applications held at Bharathiar University, Coimbatore on 03.02.2007
- 25. Fifteenth National Symposium on Environment (NSE-15) held at Bharathiar University, Coimbatore during 5-7, June, 2007
- 26. One week training programme on Environmental Statistics, held at Bhabha Atomic Research Centre, Mumbai during 9-13, September, 2007
- 27. 11<sup>th</sup> Asian Conference of Solid State Ionics held at Bharathiar University, Coimbatore during 9-13, June 2008
- 28. One day International Seminar on Nanostructures for electronics and Biomedical Applications held at Bharathiar University, Coimbatore on 09.01.2009
- 29. One day Seminar on Current and Future Radiation Research between India and Japan, held at Kalasalingam University, Krishnankoil and Schoool of Biomedical Sciences, Nagasaki University, Japan on 05.02.2009.

#### AT WORKPLACE

- 30. One day Workshop on "Effective Teaching" on 25.11.2009 conducted by School of Science and Humanities, Karunya Institute of Technology and Sciences, Coimbatore 641 114.
- 31. One Reality Two Windows Science and Religion in Dialogue during 09.02.2010 to 11.02.2010 organized by South Asia Institute of Advanced Christian Studies, Bangalore, India and Faraday Institute for Science and Religion, Cambridge, United Kingdom.
- 32. 8<sup>th</sup> Christian Teachers Conference Increase your efficiency at workplace, Kodaikanal, during 15-18, July, 2010 organized by Evangelical Teachers' Fellowship
- 33. Two days Workshop on Indian Nuclear Power Programme held at Sree Sevugan Annamalai College, Devakottai during July 26, 27, 2010 (jointly organized by Federation of Science Clubs of Tamil Nadu (FSCT, Chennai) and Indira Gandhi Center for Atomic Research, Kalpakkam)
- 34. Two day state level symposium PHYSTIVAL 2010 at Department of Physics, V.O.Chidambaram College, Thoothukudi during 23 and 24, August, 2010.
- 35. National Conference on Nanomaterials 2010 at Department of Physics, Karunya University, Coimbatore during 3 and 4 December, 2010
- 36. An Awareness Programme on Intellectual Property Rights on 18.11.2011 organized by Intellectual Property Rights (IPR) Cell, Directorate of Placement and Training, Karunya Institute of Technology and Sciences, Coimbatore 641 114.
- 37. National Conference on Nanomaterials 2012 at Department of Physics, Karunya University, Coimbatore during 3 and 4 December, 2012
- 38. Workshop on Environmental Radioactivity Monitoring at Safety Research Institute Guest House, Anupuram during December 10-11, 2012 (organized by Indian Society for Radiation Physics)
- 39. 19<sup>th</sup> National Symposium on Radiation Physics, at Radisson Blue Resort Temple Bay, Mamallapuram during December 12-14, 2012 (organized by Indian Society for Radiation Physics)
- 40. National Conference on Luminescence and its Applications (NCLA 2013), January 8-10, 2013 organized by PES Institute of Technology, Bangalore and Luminescence Society of India.

- 41. Advanced Biblical Counselling Level I, during 17.06.2013 to 22.06.2013 organized by Department of Value Education in collaboration with Person to Person, Hyderabad.
- 42. Workshop on Theoretical Physics, December 9-12, 2013 organized by Department of Physics, Bharathiar University, Coimbatore 641 046.
- 43. One day Workshop on Journalism Writing on 11.01.2014 organized by Journalism Club, Department of Extension and Continuing Education, Karunya Institute of Technology and Sciences, Coimbatore 641 114.
- 44. One day Research Seminar on Emerging Perspectives in Nanoelectronics R & D on 19.09.2014 organized by Department of Electronics and Communication Engineering, Amrita Vishwa Vidyapeetham, Coimbatore.
- 45. National Level Workshop on Thin Film Coating and Characterization Techniques, on 06.05.2015, organized by Department of Physics, Karunya Institute of Technology and Sciences, Coimbatore.
- 46. TEQIP II sponsored Workshop on "Physics in Engineering", November 5-6, 2015 organized by Department of Physics, Thiagarajar College of Engineering, Madurai.
- 47. Improving Effectiveness of Teaching and Quality of Education on 24.06.2016 organized by Department of Science and Humanities, Karunya Institute of Technology and Sciences, Coimbatore.
- 48. TEQIP II sponsored Faculty Development Programme on "Engineering Physics and Applications, during 07.07.2016 to 12.07.2016 organized by the Department of Physics, PSG College of Technology, Coimbatore.
- 49. State Level Seminar on "Future Trends in Nanotechnology" on 10.02.2017 organized by Department of PG Chemistry, Aditanar College of Arts and Sciences, Tiruchendur, Tamil Nadu.
- 50. DST-PURSE Phase II sponsored National Symposium on Recent Trends in Medical Physics during 30.08.2018 to 31.08.2018 organized by Department of Medical Physics, Bharathiar University, Coimbatore 641 046.

# PAPERS PRESENTED IN INTERNATIONAL LEVEL CONFERENCES (PUBLISHED IN REFERED JOURNALS WITH IMPACT FACTOR) (LAST FIVE YEARS)

- 1. Commissioning and Acceptance Test on Helical Tomotherapy Unit, Raghavendra Holla, D. Khanna, Renilmon P S, Ashitha M K, AMPICON 2016, 18-20, November 2016 held at Hyderabad organized by Association of Medical Physicists of India in association with KIMS Cancer Center, Krishna Institute of Medical Sciences, Secunderabad.
- 2. Commissioning Tests on Cyber-knife M6 Robotic Radiosurgery System, Raghavendra Holla, D. Khanna, Shubhangi Barsing, AMPICON 2016, 18-20, November 2016 held at Hyderabad organized by Association of Medical Physicists of

India in association with KIMS Cancer Center, Krishna Institute of Medical Sciences, Secunderabad.

- 3. Comparing consistency of gamma results in Mobius 3D/FX of lung SBRT with three different pre-treatment, Mohandass Palanisamy, D. Khanna, Orest Ostapiak, Kevin Dimond, Durai Manigandan, Narendra Kumar Bhalla, Abhishek Puri, 38<sup>th</sup> Annual Conference of Association of Radiation Oncologists of India (AROICON-2016), 24<sup>th</sup> to 27<sup>th</sup> November 2016, held at Bhubaneswar (Published in *Journal of Cancer Research and Therapeutics*, Volume 12, Issue 6 (2016) Page: 66-67) (Impact Factor<sup>®</sup> as reported in the 2016 Journal Citation Reports<sup>®</sup> (Thomson Reuters, 2017): 0.75)
- 4. **Design of a Daily QA Constancy Phantom for Cyberknife M6 Robotic Radiosurgery System,** R Holla<sup>1\*</sup>, B Pillai<sup>1</sup>, D Khanna, AAPM 2017 30.07.2017 03.08.2017, (Poster Presentation), held at Denver, the USA organized by American Association of Medical Physicists. (published in Medical Physics., Vol.44, No.6)
- 5. Patient Specific QA On Cyberknife M6 Robotic Radiosurgery System Using In-House Fiducial Based Polystyrene Phantom, R Holla<sup>1</sup>\*, B Pillai<sup>1</sup>, D Khanna, AAPM 2017 30.07.2017 03.08.2017, (Poster Presentation), held at Denver, the USA organized by American Association of Medical Physicists. (published in Medical Physics., Vol.44, No.6)
- 6. The Influence of Different Beamlet Width On Volumetric Modulated Arc Therapy Plan Quality and Delivery for Glioblastoma Brain Tumor Patients, P Mohandass, D Khanna, D Manigandan, M Kumar, A Puri, N Bhalla, American Association of Physics in Medicine (AAPM) Annual Meeting, July 30 August 3, 2017, held at Denver, Colorado, the USA, (published in Medical Physics., Vol.44, No.6, pp. 2920-2921) (impact factor: 2016 Journal Citation Reports® (Thomson Reuters, 2017)\*: 2.617)
- 7. Dosimetric Impact of Statistical Uncertainty On Monte Carlo Dose Calculation in Monaco TPS Volumetric Modulated Arc Therapy for Lung Cancer, P Mohandass, D Khanna, D Manigandan, M Kumar, A Puri, N Bhalla, American Association of Physics in Medicine (AAPM) Annual Meeting, July 30 August 3, 2017, held at Denver, Colorado, the USA, (published in Medical Physics., Vol.44, No.6, pp. 2921) (impact factor: 2016 Journal Citation Reports® (Thomson Reuters, 2017)\*: 2.617)
- 8. Validation of statistical uncertainty on Monte Carlo dose calculation in two different Monaco TPS versions, Mohandass P., Khanna D., et al., International Conference on Monte Carlo Techniques for Medical Applications, (MCMA 2017) to be held at Napoli, Italy during 15-18 October, 2017

- 9. Dosimetric impact of statistical uncertainty on Monte Carlo dose calculation in Monaco TPS volumetric modulated arc therapy for prostate cancer, Mohandass P., Khanna D., et al., International Conference on Monte Carlo Techniques for Medical Applications, (MCMA 2017) to be held at Napoli, Italy during 15-18 October, 2017
- 10. Study to evaluate the impact of statistical uncertainty for lung cancer using flattening filter free 6MV photon Beam on Monte Carlo dose calculation in volumetric modulated arc therapy, International Conference on Monte Carlo Techniques for Medical Applications, (MCMA 2017) to be held at Napoli, Italy during 15-18 October, 2017
- 11. Influence of statistical uncertainty on Monte Carlo dose calculation in volumetric modulated arc therapy for glioblastoma brain tumor, P Mohandass, D Khanna, et al., 17<sup>th</sup> Asia Oceania Congress of Medical Physics (AOCMP 2017) and 38th Annual Conference of Association of Medical Physicists of India-AMPICON 2017, to be held at Jaipur during 4th to 7th November 2017.
- **12.** Dosimetric impact of statistical uncertainty per control point on Monte Carlo dose calculation in Monaco TPS volumetric modulated arc therapy for lung cancer, D Khanna, et al., 17<sup>th</sup> Asia Oceania Congress of Medical Physics (AOCMP 2017) and 38th Annual Conference of Association of Medical Physicists of India-AMPICON 2017, to be held at Jaipur during 4th to 7th November 2017

#### MEMBERSHIP IN PROFESSIONAL BODIES

- o Institute of Physics, London
- o European Physical Society, Europe
- Indian Association of Physics Teachers
- o Indian Society for Radiation Physics
- o Luminescence Society of India
- o Evangelical Teachers' Fellowship

#### **ONLINE COURSES COMPLETED**

NPTEL Online Certification: Laser: Fundamentals and Applications

The RZIM Academy : Core Module (with distinction)

: Engaging the Modern World

IIT Kanpur : Learning Physics through simple experiments

: Semiconductor Physics (both with distinction)