

# RAYMOND R. KESHWAN

## PERSONAL DETAILS

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- Sex: Male
- Marital Status: Married
- Residential Address: 5 Jaya Ben Place, Samabula, Suva, Fiji.
- Occupation: Head of Department of Medical Imaging Science, CMNHS, FNU, Fiji.
- Telephone: +6799387118(Fiji);
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## EDUCATION

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- **Radiation Oncology Medical Physics Clinical Training Fellowship**; 2016; Prince of Whales Hospital, NSW, Australia.
- **MSc Medical Radiation Physics (with Distinction)**; 2015; University of Wollongong, NSW, Australia.
- **Graduate Certificate in Tertiary Teaching**; 2012; University of the South Pacific, Fiji.
- **Bachelor of Medical Radiation Science**; 2009; Charles Sturt University, Australia.
- **Diploma in Diagnostic Radiography**; 2005; Fiji School of Medicine, Fiji.

## WORK EXPERIENCE

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- Head of Department of Medical Imaging and Anatomy; CMNHS, FNU; June 2016 - Currently
- Radiation Oncology Medical Physicist; 2016; Nelune Comprehensive Cancer Center, Prince of Wales Hospital, Randwick, NSW, Australia.
- Lecturer and 2<sup>nd</sup> Year Programme Coordinator; 2009-2016; Bachelor of Medical Imaging Science Program, Fiji National University, Fiji.
- Head of Medical Imaging Department; 2007-2009; Republic of Nauru Hospital, Republic of Nauru.
- Medical Imaging Technologist; 2006-2007; Republic of Nauru Hospital, Republic of Nauru.
- Tutor (Foundation Study: Biology and Chemistry); 2006 – 2007; University of the South Pacific, Nauru Campus, Nauru.

## NATIONAL AND INTERNATIONAL ENGAGEMENTS

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- National Representative of Fiji to the International Society of Radiographers and Radiological Technologists (ISRRT).
- Vice President of the Fiji Society of Medical Imaging Technologists.
- Editorial Board Member of International Atomic Energy Agency, Advanced Medical Physics Learning Environment (Diagnostic Radiology).
- National Project Coordinator of IAEA/RCA Project, 'Enhancing Medical Physics Services in Developing Standards, Education and Training through Regional Cooperation'.

- National Project Coordinator of IAEA/RCA Project, 'Strengthening Cancer Management Programmes in RCA States Parties through Collaboration with National and Regional Radiation Oncology Societies (RCA).

## SUMMARY OF SKILLS

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- Clinical Skills:
  - Operation and quality assurance of Medical Imaging modalities (kV plain film imaging, fluoroscopy, ultrasound, Computed Tomography and Magnetic Resonance Imaging).
  - Calibration and verification of radiation detection and measurement instruments (Ionization chambers, Diodes, TLDs, Gafchromic films, GM counters).
  - In-vitro and in-vivo dosimetry of superficial voltage, orthovoltage and megavoltage photon and MeV electron beams.
  - Appraisal of radiation safety practices and procedures in diagnostic imaging and radiation therapy.
  - Clinical computing and networking.
  - Operation and Quality assurance of Cancer Treatment Linear Accelerators (X-Photon and Electron beams) and HDR brachytherapy (including eye plaque therapy with Iodine 125 and Ruthenium 106), 3D Conformal radiotherapy (3DCRT), Intensity Modulated Radiation Therapy (IMRT) and Stereotactic Radiosurgery (SRS)
  - Evaluation and optimization of treatment planning and dose calculation procedures using 3D treatment planning systems and simulators.
  - Radioactivity evaluation, dosimetry and radiation source transportation.
  - Planning and design of medical imaging and radiation therapy department.
- Medical educator:
  - Teaching and training of medical imaging technologists.
  - Research project supervision.
  - Curriculum development & course coordination.
  - Quality Assurance in Education
  - Designing and conducting independent research projects in medical radiation physics, medical imaging, and radiation therapy.
- Management:
  - Procedure and protocol development for diagnostic procedures.
  - Human resource management and administration duties related to operation of a diagnostic radiology department.
  - Finance and budget preparation, supplier sourcing, procurement and management of medical supplies.

## SCHOLARSHIPS

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- Endeavour Executive Fellowship Award; Fellowship; Nelune Comprehensive Cancer Care Center, Prince of Wales Hospital, NSW, Australia; 2016.
- Fiji Government Scholarship (Tertiary Schools and Loans Board); MSc Medical Radiation Physics; University of Wollongong, NSW, Australia; 2014.

- Fiji School of Medicine and Vodafone Fiji joint overseas elective scholarship; Clinical training on principles and applications of advanced medical imaging modalities; Castlereagh Imaging Tamworth and John Hunter Hospital Newcastle; 2005.

## AWARDS AND ACHIEVEMENTS

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- Fiji's first Medical/ Radiation Oncology Physicist.
- Australian Government Scholarship and Fellowship award in Fiji for the year 2016.
- Top graduate of MSc Medical Radiation Physics at Center of Medical Radiation Physics and within the top 15% of all UOW graduates; University of Wollongong, NSW, Australia; 2015.
- High Distinction Graduating Student award in Diploma in Diagnostic Radiography; Fiji School of Medicine, Suva, Fiji; 2005.

## WORKSHOPS AND CONFERENCES

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- IAEA International Train-the-Trainers Course for Radiation Protection Officers of Medical and Industrial Facilities, Greater Beirut, Lebanon, 25 – 29 March, 2019.
- Annual General Conference, Fiji Society of Medical Imaging Technologists, Labasa, Fiji, November, 2019.
- IAEA/RCA Kick-off and Project Coordination Meeting, Strengthening Cancer Management Programmes in RCA States Parties through Collaboration with National and Regional Radiation Oncology Societies (RCA), Maeabashi, Japan, 14 – 18 May, 2018.
- IAEA/RCA First Coordination Meeting and Workshop, Enhancing Medical Physics Services in Developing Standards, Education and Training through Regional Cooperation, Chiang Rai, Thailand, 19 March 2018 - 22 March 2018.
- IAEA/RCA Final Review Meeting, "Strengthening the Effectiveness and Extent of Medical Physics Education and Training (RCA)", Jakarta, Indonesia, 2-6 October 2017.
- International Training Course on the Security of Radioactive Sources, from 3-7 July 2017, in Vienna, Austria.
- Institute of Radiological & Medical Sciences (KIRAMS); National Training in CT for Cancer Staging; Suva, Fiji; February, 2017.
- IAEA-RCA Project RAS-6083; Review Meeting in Theranostics; Hanoi, Vietnam; February, 2017.
- IAEA-RCA Project RAS-6072; RTC#4: Regional Training Course on Strengthening IMRT Capability in the RCA Region: Genitourinary Cancers; Manilla Philippines; September, 2016.
- IAEA-RCA Project RAS-9062; RTC#12: Regional Training Course on Orphan Source Search; Manilla Philippines; October, 2016.
- Project Management - Monitoring and Evaluation Workshop; FNU, Fiji; 2016
- Fundamentals of Assessment Workshop organized by FNU in partnership with Flinders and James Cook University; CMNHS, FNU, Fiji; 2016
- Australia and New Zealand Society of Nuclear Medicine Physics (ANZSNM) Special Interest Symposium; Techniques in Nuclear Medicine Functional Imaging and Image Reconstruction; University of Sydney, Australia; 2016.
- Australian Institute of Radiography (AIR) Arcadis Orbic 3D Applications Training – System Components, Patient Browser and Registration, Image Acquisition, Image Review and Post Processing & Archiving; Location: Nelune Comprehensive Cancer Care Center, Prince of Wales Hospital, Randwick, Australia; 2016.

- Emergency Radioactive Source Retraction from Remote Controlled Afterloader for HDR Brachytherapy Training; Nelune Comprehensive Cancer Care Center, Prince of Wales Hospital, Randwick, Australia; 2016.
- Endeavour Executive Fellowship Professional Development Workshop; Sydney; 2016.
- Illawarra Health and Medical Research Institute and University of Wollongong joint seminar on Proton Therapy and Mayo Clinic; University of Wollongong, Australia; 2015.
- College of Medicine, Nursing and Health Sciences, Fiji National University Research Workshop; Proposal Development, Student Supervision and Project Management; 2013
- MOH Fiji and University of Auckland joint workshop on Fundamentals of Clinical Teaching; Suva, Fiji; 2012.
- Fiji Society of Medical Imaging Technologists Annual Seminar; Expansion of Radiological Services with emphasis on Efficient Service Delivery and Effective Patient Care; Suva, Fiji; 2012.
- WHO and ISRRT joint workshop; Quality Assurance, Repair and Maintenance of Equipment in General Radiography and Protocols of General and Vascular Ultrasonography; Fiji School of Medicine, Suva, Fiji; 2009.
- Basic Life Support workshop; 2008; Republic of Nauru.
- Biyearly on-job clinical skills workshop and training in ultrasound imaging by Mr Peter Murphy (Senior Sonographer of North Coast Radiography, Australia) and Mr Peter Coombs (Sonographer In charge Southern Health Australia, Senior Lecturer Monash University, Australia); 2006-2009; Republic of Nauru.

## PUBLICATIONS AND PRESENTATIONS

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- *Chest Radiography*, Seminar Presentation, Fiji Society of Medical Imaging Technologists, College of Medicine, Nursing and Health Sciences, FNU, Fiji, 2019.
- *Enhancing Medical Physics Services in Developing Standards, Education and Training through Regional Cooperation*, Oral Presentation, IAEA/RCA First Coordination Meeting and Workshop, Chiang Rai, Thailand, 19 March 2018 - 22 March 2018.
- *Radiation Protection in Diagnostic Imaging*; Seminar Presentation, Fiji Society of Medical Imaging Technologists, The Pearl Resort, Suva, Fiji, 2017.
- *Strengthening the Effectiveness and Extent of Medical Physics Education and Training (RCA)*, Oral Presentation, IAEA/RCA Final Review Meeting, Jakarta, Indonesia, 2-6 October 2017.
- *Security of Radioactive Sources*, Oral Presentation, IAEA International Training Course on the Security of Radioactive Sources, Vienna, Austria, 3-7 July 2017.
- *Radioactive Orphan Source Search*, Oral Presentation, Regional Training Course, Quezon City, Philippines, 17 - 21 October 2016.
- *Genitourinary Cancer*, Oral Presentation, Regional Training Course on Strengthening Intensity Modulated Radiation Therapy Capability in the RCA Region, Manila, Philippines, September 6 - 10, 2016.
- *Linear-Quadratic Modelling of the Response of in-vitro gL-gliosarcoma cells to Synchrotron Microbeam Radiation Therapy*; Seminar Presentation, Centre for Medical Radiation Physics, Wollongong, Australia, 2015.

## REFEREES

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