



# SIDDHARTHA AJAYAKUMAR

## MEDICAL PHYSICIST AND RSO

I have good experience in all areas of Radiotherapy Medical Physics including Acceptance Testing and Commissioning, Treatment Planning, Quality Assurance, Radiation Dosimetry and Radiation Safety, whilst at the same time teaching students and staffs about all areas of medical Physics and radiation Safety. Presently looking for a medical Physicist/RSO position in Radiation Oncology that offers long term career development opportunities

## EXPERIENCE

### CLINICAL SCIENTIST(RADIOTHERPY PHYSICS)

**MAY 2019- Present**

**MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST, UNITED KINGDOM.**

I am currently working as a Clinical Scientist in Kent and Canterbury Hospital. My key responsibilities are radiotherapy treatment planning and plan checking and Linear Accelerator Quality assurance and Dosimetry.

The department facilities include Varian Linear Accelerators(True beams, Clinac IX, Clinac 2300CD),Varian Eclipse and Philips Pinnacle Treatment Planning Systems, Treatment plan verification software such as Delta 4,matriXX,Compass etc.

### CHIEF MEDICAL PHYSICIST AND RSO

**August 2015 - Present**

**MJKM CANCER RESEARCH CENTRE – ALAPPUZHA,INDIA**

Working as Chief medical Physicist and RSO in Department of Radiation Oncology. Department facilities include Varian Vital Beam LINAC, Varian 2300C/D LINAC, Siemens CT Simulator, Acuity Simulator and Eclipse TPS.

#### Major Responsibilities:

- Lead role in installation, acceptance testing and commission of New Varian Vital beam LINAC with IGRT and Rapid Arc facilities. I was responsible for doing all regulatory works (AERB) as part of new LINAC installation and operation.
- Upgradation and Acceptance testing of existing Varian 2300C/D LINAC
- Validation of new upgraded Eclipse Treatment Planning Software(Ver13.6)
- Treatment planning of radiotherapy treatment including 3D CRT, IMRT, Rapid Arc, Electron therapy etc.
- Quality assurance and dosimetry of LINACs as per standard protocol (AAPM, AERB) which include daily QA, monthly QA and Yearly QA.
- I am responsible for Submitting Annual Safety Status Report of radiotherapy department to AERB at the end of every year and also renewal of Equipment's Licenses.



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## SKILLS

*Setting up of Radiation oncology Department*

*Acceptance Testing and Commissioning of LINAC,HDR and Simulator*

*Treatment Planning 3D CRT,IMRT/IGRT,VMAT,SBRT,HDR Brachytherapy*

*Quality Assurance and Dosimetry of Radiotherapy Machines*

*Radiation Safety Officer*

*Teaching*

*Software skill in Windows, Ubuntu*

- Treatment plan verification by doing patient specific QA and giving patient specific treatment instruction.
- Ensure radiation safety (radiation Safety Officer) of all workers and Public. Training to new staffs in Treatment planning system (Physicist, Oncologist), Simulation and treatment delivery (Technologist).

## CAREER STATEMENT

*As a medical physicist and RSO, I believe that my primary Aim is to make radiation therapy treatment quality better by proper quality control and dosimetry of radiation delivery equipment, proper treatment planning and accurate delivery of radiation dose. At the same time as an RSO I am responsible for radiation safety of workers and public and make sure that use of radiation is agree with Laws of radiation protection.*

*Secondly I am interested in research and education to improve Cancer treatment.*

## MEMBERSHIPS

*Health and care professions Council (HCPC UK) No: CS20622*

*Institute of Physics and Engineering in medicine (IPEM)- United Kingdom*

*Reg no : 232296*

*Association of medical Physicist of India (AMPI) –INDIA*

*Reg no: LM 2114*

### SENIOR MEDICAL PHYSICIST

*July 2012 – July 2015*

**A J HOSPITAL AND RESEARCH CENTRE – MANGALORE,INDIA**

I was appointed as Medical Physicist for starting their New radiation oncology department. The department facilities include Elekta Synergy LINAC, Microselectron HDR, Oncentra Treatment Planning System, CT Simulator,1.5T MRI and PET CT.

#### Major Responsibilities:

- Giving instruction to the Architect such as LINAC and HDR Bunker wall thickness, material and spacing for drawing Radiotherapy building plan.
- Making report on Machine (LINAC,HDR,TPS) specification required for purchasing treatment Machines
- Do all regulatory works (AERB) requires for importing, installation and commission of Treatment machines.
- Acceptance Testing and Commissioning of Elekta Synergy LINAC, HDR Brachytherapy and Oncentra TPS.
- Treatment planning of External Beam radiotherapy(3D CRT,IMRT and electron therapy) and Brachytherapy(Intracavity, Interstitial and surface mould)
- Quality Assurance and dosimetry of Radiation delivery equipment and TPS.
- Calibration of Radiation measuring instruments such as Ion Chamber, Well Chamber, Electrometer, Survey meter etc.
- Part time Lecturer of A J Institute of Medical Science for Graduate and Post graduate students(radiotherapy and Imaging)
- Consultant RSO of A J Institute of Dental Science

### MEDICAL PHYSICIST

*Sept 2009 – June 2012*

**GOVT.GENERAL HOSPITAL – ERNAKULAM,INDIA**

I started my career from Govt. General hospital. The department setup include Telecobalt machine, Elekta Synergy and HDR Brachytherapy.

#### Major Responsibilities:

- Treatment planning 3D CRT and HDR Brachytherapy(Intracavity)
- Quality Assurance and Dosimetry in radiotherapy
- Responsible for Radiation safety (RSO) of workers and public
- Submit annual safety status report to AERB
- Teaching and give training to internship students (BSC MRT).

**OTHER DETAILS**

Language : English, Malayalam

Passport : K1587644(INDIAN)

Nationality : Indian

Driving license: Yes

Date of Birth: 24 May 1986

**EDUCATION**

**MASTER OF SCIENCE IN RADIATION PHYSICS** 2006-2008  
**UNIVERSITY OF CALICUT**  
**PASSED : 76 % (FIRST CLASS WITH DISTINCTION)**

**RADIATION SAFETY OFFICER (RSO) CERTIFICATION** 2008

**BACHELOR OF SCIENCE IN PHYSICS** 2003-2006  
**UNIVERSITY OF CALICUT**  
**PASSED : 91 % (FIRST CLASS WITH DISTINCTION)**

**HSC KERALA(PLUS 2)** 2001-2003

**SSLC(10TH STANDERD) KERALA** 2001

**PUBLISHED PAPERS**

1. Dosimetric studies of mixed energy intensity modulated radiotherapy for prostate cancer treatment. Journal of Radiotherapy

Volume 2014 (2014), Article ID 760206.

2. FLUKA Monte Carlo based dosimetric studies of duel energy medical linear accelerator. Journal of Radiotherapy

Volume 2014,Article ID 343979

**REFEREES**

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