



YOUR NAME (YOUR POSITION, COMPANY)

Ivan Stojanović, medical physicist in Health Centre Kladovo, Serbia. I studied applied physics at University of Belgrade, and after graduation I worked as a High School Physics Teacher. Since 2020 I have been working as a medical physicist in a health center.



WHERE DO YOU WORK

My workplace is a Health Center. The center has a variety of departments, I am working at the Oncology department, radiotherapy service. We are dealing with about 60 patients per day on our linac machine and 2 patients daily on our brachytherapy machine.



OVERVIEW OF THE JOB

My job, as a medical physicist, is to perform daily, monthly, quarterly and annually checks of the machines, to calibrate machines, perform dosimetry tests on Linac and calibration of the radioactive isotope, make radiotherapy patient plans and perform patient QA after planning. Importing, exporting patient DICOMs, registration of images in different modalities. The job is related to STEAM through physics, biology, chemistry, mechanics, electromagnetic radiation, AI, computer modeling and informatics. You need solid usage of mathematical modeling during treatment planning and preparation, also you have to use some AI tools to perform better results, for the patient safety and treatment efficacy good knowledge of radiobiology is predominant.



WHAT INSPIRED YOU

I was always STEAM related, but as a 6th grade boy the most influential on me was my physics teacher Katica Grabovičanović, she insisted on hands on activities and experiment in physics.



TYPICAL WORKING DAY

A typical working day starts at 7 AM, we are preparing our LINAC machine for daily clinical usage. We verify that its energy, output, and profiles are within tolerances. If not we contact service engineers. After Daily check ups, we have to see what kind of patients we need to do for the next few days, and in compliance with our MD to make the priority list. Then we have to import new patients from CT simulator into our database, and prepare them for MD to delineate tumors, and Organ of risks. Finally we are dealing with treatment planning, based on the delineation contours we have to decide how to treat patients to achieve clinical goals.



STUDY & CAREER PATH

I was studying Applied physics, and my master thesis was related to linac beam calibration, but after finishing the studies I started as a High School Physics Teacher, because radiotherapy in Serbia was low and there was no need for more physicist in this field, after 2018, our government decide to improve radiotherapy in our Country, and purchased several new machines, so the working chance was open. I had two experienced physicists to work with during my first step in radiotherapy, also the government sent us on international educational courses (ESTRO and EFOMP). Now we have two universities with a Medical physics master programme.



KEY SKILLS

Analytical Reasoning - Diagnostic equipment and data issues methodically, creating evidence based procedures.

Data analysis - Interpreting measurements, trends, data and uncertainties.

Collaboration- Explaining complex physics to clinicians, technologists and administrators, educating students, residents, and staff.

Resilience - Stay calm under pressure, emergencies, errors or system failures.

Curiosity - Staying current with evolving technologies, guidelines, and best practices, learning from mistakes and successes alike.

Artificial Intelligence (AI) - Using new AI tools and implementing them into clinical work under current legislation.



CAREER PROSPECT

You can work as a medical physicist, but also as a medical physics application specialist, dosimetrist, medical equipment sales manager.



CHALLENGES

Troubleshooting equipment failures, responding quickly to radiation incidents or exposure risks, balancing innovation with clinical practice. Advocating for recognition of medical physicist as healthcare professionals.



YOUR ADVICE TO STUDENTS

Study hard and choose wisely.



YOUR ADVICE TO TEACHERS AND PARENTS

Let the students be creative, evolve their curiosity, help them find relative resources to their interest.



LEARN MORE

[EFOMP, E-Learning Courses – | IAEA, Home Page, \(429\) Medical Physics for World Benefit - YouTube, Master of Advanced Studies in Medical Physics | ICTP](#)

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