

## DAFTAR PUSTAKA

- Ahmed, S.N., 2007, *Physics & Engineering of Radiation Detection*, Elsevier.
- Alatas, Z., Hidayati, S., Akhadi, M. & Purba, M., 2016, Buku pintar nuklir, *Batan Press*, 1–216.
- Alice, M. & Visconti, P., 2014, *Radiation Protection in Medical Radiography*, BAPETEN, 2005, *Petugas Proteksi Radiasi*, Jakarta.
- Behling, R., 2015, *Modern Diagnostic X-Ray Sources*,
- Beiser, A., 2003, Concepts of Modern Physics Sixth Edition, *Mc Graw Hill*, 33, 8, 667.
- Bonifaz, P., S, A.C.R.C. & Ricardo, P.E., 2021, Diagnostic Reference Levels for Common X-ray Procedures in Peru, *Cureus*.
- Bushberg, J.T., Seibert, J.A., Leidholdt, E.M. & Boone, J.M., 2012, *The Essential Physics of Medical Imaging*, Wolters Kluwer Health/Lippincott Williams & Wilkins.h.
- Bushberg, J.T., Seibert, J.A., Leidholdt, E.M. & John M. Boone, J.M., 2012, *The Essential Physics of Medical Imaging*, Wolters Kluwer Health/Lippincott Williams & Wilkins.h.
- Callejas-Cuervo, M., González-Cely, A.X. & Bastos-Filho, T., 2021, Design and implementation of a position, speed and orientation fuzzy controller using a motion capture system to operate a wheelchair prototype, *Sensors*, 21, 13.
- Cierniak, R., 2011, *X-Ray Computed Tomography in Biomedical Engineering*, Springer London, London.
- Damayanti, T., Fatimah, M., Muliani, R., Anisah, A., Pratikno, H. & Feliyanti, M., 2022, Gambaran Manajemen Alat Pelindung Diri (APD) Radiasi di Instalasi Radiologi Rumah Sakit Bhayangkara Palembang, *Jurnal Ilmiah Universitas Batanghari Jambi*, 22, 2, 786.
- Del, S.F.S., García-Salcedo, R., Sánchez-Guzmán, D., Ramírez-Rodríguez, G., Gaona, E., de León-Alfaro, M.A. & Rivera-Montalvo, T., 2016, Thermoluminescent dosimeters for low dose X-ray measurements, *Applied Radiation and Isotopes*, 107, 340–345.
- Dyson, N.A., 2005, *X-rays in Atomic and Nuclear Physics*, Second Edi, Cambridge University Press.

- Espressif, 2025, *ESP32 Technical Reference Manual Version 5.3*, Shanghai.
- Espressif Systems, 2023, *ESP32-C3 Wireless Adventure: A Comprehensive Guide to IoT*,
- Fajar, M.S. & Habsari, K.M., 2022, Pemanfaatan modul Geiger-Muller untuk mendeteksi radiasi pada pengolahan limbah B3 rumah sakit, *Jurnal Eltek*, 20, 2, 95–102.
- Fardela, R., Kusminarto & Ashari, A., 2018, Study of Wireless Sensor Network Application for Dosimeter Personal Real Time, *2018 International Conference on Orange Technologies, ICOT 2018*, 5, Figure 1, 1–4.
- Fardela, R., Suparta, G.B. & Ashari, A., 2020, the Work Environment for the Health Workers : an Experimental, *Periodico Tche Quimica*, 17, December.
- Fardela, R., Suparta, G.B., Ashari, A. & Triyana, K., 2021, Experimental Characterization of Dosimeter Based on a Wireless Sensor Network for A Radiation Protection Program, *International Journal on Advanced Science, Engineering and Information Technology*, 11, 4, 1468–1473.
- Fardela, R., Suparta, G.B., Ashari, A. & Triyana, K., 2019, Multi sensor data acquisition system design for monitoring the radiation dose based on wireless sensor network, *International Journal of Engineering Research and Technology*, 12, 6, 848–853.
- Garcia-Sanchez, A.J., Angosto, E.A.G., Riquelme, P.A.M., Berna, A.S. & Ramos-Amores, D., 2018, Ionizing radiation measurement solution in a hospital environment, *Sensors (Switzerland)*, 18, 2.
- Gershan, V. & Acovska, V., 2013, Implentation of Ray Safe i2 System for Staff Dose Measuring in Interventional Radiology, *Conference on Medical Physics and Biomedical Engineering*, , October, 10–13.
- Ghughe, N.N., Jasrotia, S. & Anamika, C.S., 2015a, Geiger Muller: a Thin End Window Tube Radiation Detector, *International Journal of Research in Engineering and Technology*, 04, 05, 190–196.
- Ghughe, N.N., Jasrotia, S. & Anamika, C.S., 2015b, Geiger Muller: a Thin End Window Tube Radiation Detector, *International Journal of Research in Engineering and Technology*, 04, 05, 190–196.
- Hall, E.J. & Giaccia, A.J., 2018, *Radiobiology for the Radiologist*, edisi ke 8th, L. W. & Wilkins, ed., Lippincott Williams and Wilkins.

- Hilyana, F.S., 2017, Penentuan Tegangan Operasional Pada Detektor Geiger Muller Dengan Perbedaan Jari-Jari Window Detektor, *Simetris: Jurnal Teknik Mesin, Elektro dan Ilmu Komputer*, 8, 1, 393–398.
- Hiswara, E., 2023, Proteksi dan Keselamatan Radiasi, *Badan Riset dan Inovasi Nasional*, 1–153.
- Hiswara, E. & Darmawati, S., 2024, Pengantar Sistem Proteksi Radiasi,
- IAEA, 2018, *IAEA Safety Standards Series GSG-8: Radiation Protection of the Public and the Environment*, International Atomic Energy Agency, Vienna.
- ICRP, 2007, ICRP PUBLICATION 103 The 2007 Recommendations of the International Commission on Radiological Protection, *Radiation Physics and Chemistry*, 188, 2–4, 1–37.
- International Atomic Energy Agency, 2020, *Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards*, IAEA.
- Ji, Z. & Anwen, Q., 2010, The application of internet of things(IOT) in emergency management system in China, Dalam, *2010 IEEE International Conference on Technologies for Homeland Security (HST)*, IEEE, hlm. 139–142., <http://ieeexplore.ieee.org/document/5655073/>.
- Joana, R. & Roque, C., 2018, X-ray imaging using 100  $\mu\text{m}$  thick Gas Electron Multipliers operating in Kr-CO<sub>2</sub> mixtures, , , June.
- Kamiya, K., Ozasa, K., Akiba, S., Niwa, O., Kodama, K., Takamura, N., Zaharieva, E.K., Kimura, Y. & Wakeford, R., 2015, Long-term effects of radiation exposure on health, *The Lancet*, 386, 9992, 469–478. <https://linkinghub.elsevier.com/retrieve/pii/S0140673615611679>.
- Kaur, A., Sharma, S. & Mittal, B., 2012, Radiation surveillance in and around cyclotron facility, *Indian Journal of Nuclear Medicine*, 27, 4, 243.
- Kepala Badan Pengawas Tenaga Nuklir, R.I., 2014, KEPALA BADAN PENGAWAS TENAGA NUKLIR REPUBLIK INDONESIA 2. Undang-undang..., *Peraturan Kepala Badan Pengawas Tenaga Nuklir Nomor 15 Tahun 2014 Tentang Keselamatan Radiasi Dalam Produksi Pesawat Sinar-X Radiologi Diagnostik Dan Intervensional*, 1–49.
- Koch, V., Conrades, L.M., Gruenewald, L.D., Eichler, K., Martin, S.S., Booz, C., D'Angelo, T., Yel, İ., Bernatz, S., Mahmoudi, S., Albrecht, M.H., Scholtz, J., Thalhammer, A., Zangos, S., Vogl, T.J. & Gruber-Rouh, T., 2022, Reduction of Radiation Dose Using Real-time Visual Feedback Dosimetry During Angiographic Interventions, *Journal of Applied Clinical Medical Physics*.

- Korff, S., 2013, How the Geiger Counter started to crackle: Electrical counting methods in early radioactivity research, *Annalen der Physik*.
- Krytska, Y., Skarga-Bandurova, I. & Velykzhanin, A., 2017, IoT-based situation awareness support system for real-Time emergency management, Dalam, *In 2017 9th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS)*, IEEE, hlm. Vol. 2, hlm. 955–960.,
- Kržanović, N., Stanković, J., Živanović, M., Krajinović, M., Božović, P., Kojić, A. & Topalović, D., 2023, Characterization of Thermoluminescent Dosimetry Systems According to the IEC 62387:2020 Standard, *Health Physics*.
- Lado, K., Sube, L., Daniel, J., Lako, W., Stephen, C., Lumori, G., Yengkopiong, J.P., Augustino, J., Utong, M., Binyason, S.A., Samuel, Y., Ngerja, L., Kalisto Moilinga, M., Lado, T.F. & Kheiralla, A.H., 2020, Diversity and distribution of medicinal plants in the republic of South Sudan, *World Journal of Advanced Research and Reviews*, 2020, 01, 2581–9615.
- Links, J.L.P. dan J.M., 2015, *Medical imaging signals and systems. 2 ed.*, Pearson, Boston.
- Magalotti, D., Placidi, P., Dionigi, M., Scorzoni, A. & Servoli, L., 2016, Experimental Characterization of a Personal Wireless Sensor Network for the Medical X-Ray Dosimetry, *IEEE Transactions on Instrumentation and Measurement*, 65, 9, 2002–2011.
- Maier, A., Steidl, S., Christlein, V. & Hornegger, J., 2018, *Medical Imaging Systems: An Introductory Guide*, A. Maier dkk., ed., Springer.
- Maqbool, M., 2017, Interaction of Gamma Rays and X-Rays with Matter, Dalam, hlm. 43–61.,
- Martin, A. & Harbison, S.A., 1980, *An Introduction to Radiation Protection - Second Edition*, John Wiley & Sons Ltd, New York.
- Martin, I.M. & Gomes, M.P., 2017, Radon Gas Measurements through Geiger and Sodium Iodide Scintillator----Study Efficiency Comparison, *Journal of Environmental Science and Engineering A*, 6, 5, 270–275.
- Masrochah, S., Darmini, D., Nui, M., Soewondo, A., Agusyahbana, F., Prakoso, D. & Jannah, M., 2023, Pengembangan Monitor Personal Dosimetri Dengan Menggunakan Plate Detector Guna Menunjang Keselamatan Radiodiagnostik, *Link*, 19, 1, 56–63.

- Meriç, I., Johansen, G.A., Holstad, M.B., Calderon, A.F. & Gardner, R.P., 2012, Enhancement of the intrinsic gamma-ray stopping efficiency of geiger-müller counters., *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 696, 46–54.
- Muhammad, S., Djarwanti, R. & Lestariningsih, E., 2017, Gagasan Sistem Manajemen Dosis Pada Pengelolaan Limbah Radioaktif Hasil Fisi, , , November, 117–122.
- Mukh Syaifudin, 2023, *Biologi Radiasi: Dasar-dasar dan Aplikasi*,
- Nagatani, T., Katayama, H. & Nakagawa, S., 2016, Collection and Transmission System of Radiation Information With a Portable Radiation Detector, , 89–94.
- Nguyen, P., Nakamura, H., Kitamura, H., Sato, N., Takashi, T., Maki, D., Kanayama, M., Yoshiyuki, S. & Takahashi, S., 2016, Alpha Particle Response for a Prototype Radiation Survey Meter Based on Poly(ethylene terephthalate) with Un-doping Fluorescent Guest Molecules, *Japanese Journal of Health Physics*, 51, 1, 60–63.  
[https://www.jstage.jst.go.jp/article/jhps/51/1/51\\_60/\\_article/-char/ja/](https://www.jstage.jst.go.jp/article/jhps/51/1/51_60/_article/-char/ja/).
- Nicholson, P.W., 1974, *Nuclear Electronics*, 1st ed., John Wiley & Sons Ltd.
- PJRC, Teensy® 4.1 Development Board,  
<https://www.pjrc.com/store/teensy41.html>.
- Pratama, W., Mak'ruf, M.R., Indrato, T.B., Yulianto, E., Lamidi, L., Nosike, M. & Srivastava, S., 2022, Analysis of the Geiger Muller Ability on the Effect of Collimation Area and Irradiation Distance on the Dose of X-Ray Machine Measurements, *Journal of Electronics Electromedical Engineering and Medical Informatics*.
- Prince, J.L. & Links, J.M., 2015, *Medical imaging signals and systems. 2 ed.*, Pearson, Boston.
- Rahayu, F., 1997, Radiasi Pengion dan Resiko Kanker Terhadap Manusia, *Buletin ALARA*, 1, 1, 17–20.
- Rahman, N.A.A., Lombigit, L., Abdullah, N.A., Azman, A., Dolah, T., Muzakkir, A. & Taat, M.Z., 2016, Arduino based radiation survey meter, , Vol. 1704, January 2016.

- Rajan, G. & Izewska, J., 2015, Review of Radiation Oncology Physics: A Handbook for Teachers and Students: CHAPTER 4. RADIATION MONITORING INSTRUMENTS, *Radiation Oncology Physics*, 1–18.
- Rani, P., 2022, To determine radioisotopes and heavy elements with the help of various detectors, , 11, 545–556.
- RaySafe, 2018, RaySafe X2 User Manual, , 26.
- Samie, S.G.A. El, 2020, Enhancing the Use of Isotope Hydrology in Planning, Management, and Development of Water Resources, , , May, 1–183.
- Sciences, N. & Litvakas, A., 2023, Development of a Modular Radiometric Measurement System for Radiation Protection Development of a Modular Radiometric Measurement System for Radiation Protection,
- Sensorslot, 2018a, *Geiger-Counter-RadiationD-v1.1-CAJOE - Geiger Counter Diagram*,
- Sensorslot, 2018b, *Geiger-Counter-RadiationD-v1.1-CAJOE - M4011 Geiger Tube Spesification*,
- Sensorslot, 2018c, *Geiger-Counter-RadiationD-v1.1-CAJOE- How To Convert The Conuters From Geiger Counter Kit*,
- Singh, J., Dhillon, J.S., Vermani, Y.K. & Singh, T., 2023, Evaluation of Gamma-Ray Sensing Parameters for Some Oxides of Lanthanides, *Journal of Physics: Conference Series*, 2663, 1.
- Strehl, C., Heepenstrick, T., Knuschke, P. & Wittlich, M., 2021, Bringing light into darkness—comparison of different personal dosimeters for assessment of solar ultraviolet exposure, *International Journal of Environmental Research and Public Health*, 18, 17.
- Susila, I.P., Alfiansyah, A., Istofa, I., Sukandar, S., Santoso, B. & Suratman, S., 2019a, Development of Mobile Device for Gamma Radiation Measurement Utilizing Lora As the Communication Means, *Jurnal Teknologi Reaktor Nuklir Tri Dasa Mega*, 21, 2, 79.
- Susila, I.P., Alfiansyah, A., Istofa, I., Sukandar, S., Santoso, B. & Suratman, S., 2019b, Development of Mobile Device for Gamma Radiation Measurement Utilizing Lora As the Communication Means, *Jurnal Teknologi Reaktor Nuklir Tri Dasa Mega*, 21, 2, 79.
- van Vugt, F.T., 2020, The TeensyTap framework for sensorimotor synchronization experiments, *Advances in Cognitive Psychology*, 16, 4, 302–308.

- Wahyudi, I. & Milvita, D., 2018, RS . Universitas Andalas Padang, , 7, 3, 273–278.
- Yang, Z., Vrielinck, H., Jacobsohn, L.G., Smet, P.F. & Poelman, D., 2024, Passive Dosimeters for Radiation Dosimetry: Materials, Mechanisms, and Applications, *Advanced Functional Materials*, 2406186.
- Youssef, L. Ben, Drissi, H., Bybi, A. & Chater, E.A., 2024, Smart X-Ray Geiger Data Logger: An Integrated System for Detection, Control, and Dose Evaluation, *International Journal of Advanced Computer Science and Applications*, 15, 10, 953–961.
- Zulkarnain, Z., Utami, L.S. & Sabaryati, J., 2018, Dampak Fraksinasi Dosis Paparan Radiasi Terhadap Insulin Levels Pankreas Pasca Iradiasi Sinar Gamma, *Orbita Jurnal Kajian Inovasi Dan Aplikasi Pendidikan Fisika*.