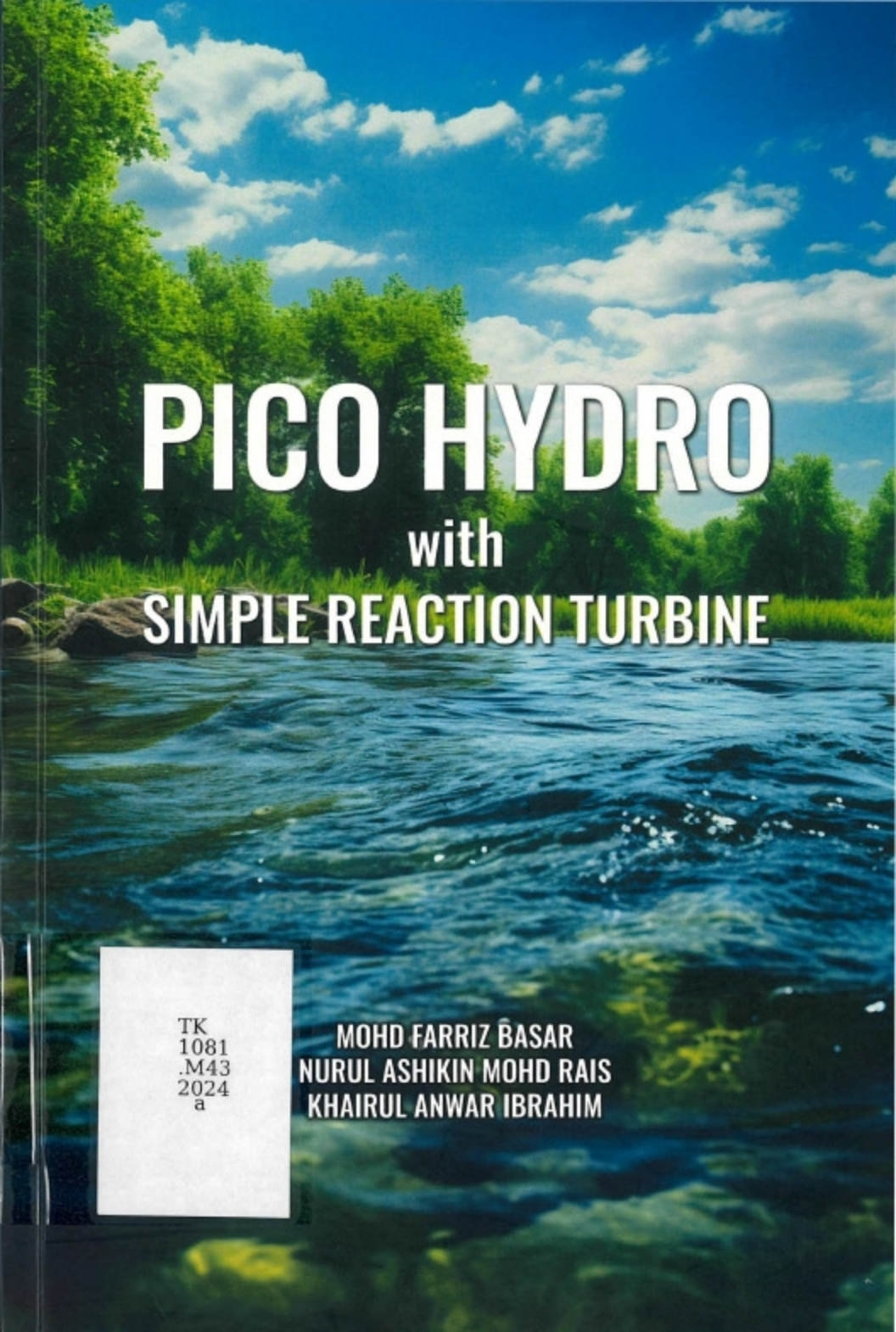




PICO HYDRO

with

SIMPLE REACTION TURBINE

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PICO HYDRO with SIMPLE REACTION TURBINE

This book, titled "Pico Hydro with Simple Reaction Turbine," offers a thorough exploration of the historical development of hydropower, focusing specifically on the story of the basic reaction turbine. This turbine is capable of producing a small amount of electricity from a limited water supply, making it suitable for use in a pico-hydro system. The author of this book illustrates, both theoretically and experimentally, how one might progress a simple reaction turbine to the capability of developing an ultra z-blade turbine that possesses its own set of distinctive qualities. Utilizing a predetermined quantity of water as the primary resource for the process of generating electricity, is commonly known as hydroelectricity. Hydroelectric power is a sustainable and eco-friendly means of generating electricity with enduring benefits. The main focus of this study was to undertake the design, development, testing, and performance analysis of a novel pico-hydro system that incorporates a Z-Blade reaction type water turbine. The research was conducted using both analytical and empirical approaches which includes the theoretical part on reaction water turbine and pico hydro system in the first three chapters, and subsequent chapters of this literary work comprise of segments that are both technical and analytical in nature.



MOHD FARRIZ BASAR, graduated in Bachelor and Masters of Electrical Engineering degree from University Teknologi Malaysia in 2001 and 2009 respectively. He earned his PhD in Renewable Energy from the Solar Energy Research Institute at Universiti Kebangsaan Malaysia in 2017. As a Professional Engineer, he holds a Practising Certificate registered with the Board of Engineers Malaysia (BEM) and the Institute of Engineers Malaysia (IEM) since 2013. Dr. Mohd Farriz has been a Senior Lecturer in the Faculty of Electrical Technology and Engineering at Universiti Teknikal Malaysia Melaka (UTeM) since 2005. As an active

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NURUL ASHIKIN MOHD RAIS born on July 27, 1983, in Selangor, Malaysia, is an accomplished academic and researcher. She earned her Bachelor's degree in Electrical Engineering (Industrial Power) from Universiti Teknikal Malaysia Melaka (UTeM) in 2006. Subsequently, in 2009, she completed her Master of Science in Communication and Information Engineering at Universiti Teknologi MARA (UiTM). Her passion for renewable energy led her to pursue a PhD in Electrical Engineering at UTeM, which she successfully obtained in 2022. Dr. Nurul Ashikin's research interests primarily focus on renewable energy, and she has

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