EDITORIAL

Editorial: Advancing Applied Mathematics for Energy, Environment, and Smart Systems

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The twenty-first century deals with two major problems that require speeding up technological progress alongside environmental preservation. The field of applied mathematics which used to function as a supporting tool now operates as a transformative engine which drives progress in thermal management, energy storage, nanofluidics, artificial intelligence and environmental modeling. The *ICCK Journal of Applied Mathematics* begins its first edition at the point where necessity and opportunity unite to enable cross-disciplinary research between theoretical models and technological implementation.

The world now undergoes a fundamental transformation of its energy systems by replacing fossil fuels with decentralized AI-optimized sustainable infrastructure. The necessary evolution requires mathematical modeling to provide its deep insights. The solution requires mathematical modeling to achieve entropy optimization in nanofluid-based heat exchangers and to simulate phase change materials for thermal energy storage and to predict the control of renewable energy integration into smart grids.

The existing journals that address engineering or mathematical topics fail to serve the increasing number of studies at the convergence of applied mathematics with energy systems and sustainable technologies and intelligent systems. The *ICCK Journal of Applied Mathematics* aims to address this knowledge deficiency. The publication accepts both theoretical work that leads to practical results and simulation studies that produce prototype-effective outcomes together with AI-based optimization techniques that support real-world implementations. Our research includes computational fluid dynamics and hybrid nanofluid modeling as well as inverse problems in heat transfer and data-driven energy systems along with additional fields.

Our mission combines three fundamental principles which include both scientific excellence and engineering importance as well as technological solution capacity. Authors will experience an efficient peer review process because the editorial board maintains a balance between review depth and speed which helps authors improve their work before it gets quickly published. This journal works toward achieving global targets including Green Energy, and Zero Carbon emission by publishing research that supports a resilient low-carbon future.

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The *ICCK Journal of Applied Mathematics* functions beyond being an information archive because it serves as a professional hub for scientists and engineers who create sustainable intelligent solutions through mathematical modeling.

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Conflicts of Interest

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Ethical Approval and Consent to Participate

Not applicable.



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