

Progress in research breeds further progress and benefits through dissemination in space and time, via peer-reviewed archival journals, which have to reflect the contemporary dynamics of knowledge acquisition and the consequent product development. We are in an era of rapid cross-fertilization between formerly distant fields, as varied as materials science and biology, physics and economics, or engineering and law, to name just a few, and in an era of rapid demand and emergence of multidisciplinary efforts that blend the basic sciences, the engineering sciences, and application-oriented development, at meeting points of universities, industries, and municipalities.

We believe that **ARI – The Bulletin of the Istanbul Technical University** can fulfill a prime role in this flow of knowledge and know-how, by the depth, breadth, and dynamism of its authors, readers, and editors, reflecting the tradition and current state of its parent institution and of our allied institutions across the world.

The journal will bring you articles from the entire spectrum of the quantitative sciences, namely all the basic and engineering sciences, as well as the quantitatively approached social sciences. The articles will provide the depth needed for its area specialist, as well the awareness for the reader who is not – but may choose to become – a specialist in that area.

This new philosophy of ARI is seen at work from this very first issue, which contains articles from a wide range of basic and engineering sciences, hereby exemplifying the breadth of the fields as well as their chain of overlaps.

It is thus with extreme pleasure that we launch this new improved phase of our journal. We fervently hope – and believe – that this ARI will be impactful, in fulfilling the cutting-edge needs of its readers and authors.

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