



Prologue

The series *eBooks on Mathematics and Physics applied to Engineering* is born as an initiative from the core of Editorial UCA to firmly bet for electronic books as an emerging academic source inside a dynamic society that converges to the digital world, as we can already see with the irruption, in the Twenty First Century, of the smartphones, smart tables and smart TVs. The new phenomenon known as *Internet of Things* is becoming a fundamental tool in many scopes of the modern society. Valid proof of the latter fact is the so called fourth industrial revolution that we are going through right now (or Industry 4.0 as many experts prefer to name it) in which expressions such as *Big Data* constitute the skeletal shell in these new industrial settings.

The academic world is not falling behind on this digital tendency we are submerged in. As a matter of fact, academia is strongly moving along relying on its three fundamental pillars: **teaching**, **research** and **transference**.

Digital scientific journals, DOIs, research profiles, indexation and abstracting databases, repositories, bibliometric indices and metadata show that we are moving forward on a very specific direction towards an academic and editorial management based

on digital contents.

The tremendous advances on new mobile technologies allow that the digital reading be extremely comfortable and affordable in almost any place, either *offline* or *online* with numerous WiFi and 4G hotspots available nowadays. Cloud storing and computing also allows to pile up a large amount of reading material, everything condensed in a mobile way thanks to these new technologies that evolve drastically.

Finally, this new number provides continuity to the series *eBooks on Mathematics and Physics applied to Engineering*, becoming number **2** of the mentioned series, which advances firmly towards an electronic publication model more present in the academic world every passing day.

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eBooks on Mathematics and Physics applied to Engineering