



## Analysis and Mathematical Modeling of Control Engineering and Path Planning, 2nd Edition

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### Message from the Guest Editor

Mathematical modeling is a powerful tool in the context of the transition from Industry 4.0 to Industry 5.0. Migrating from industrial automation to industrial autonomy requires the development of digital twins, a cyber representation of the physical system that must be controlled. Cyber representation is based on mathematical models that also comprise the real-time behavior of the physical process along with its control structure. Industrial autonomy is also based on autonomous robots that must react to the changing environment and tasks according to path planning.

I am pleased to invite you to publish qualitative papers that present new and improved versions of existing mathematical models that have been designed at various observation and representation scales within an industrial control system and are applicable in control engineering and path planning, along with their qualitative and quantitative analysis.





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## Message from the Editor-in-Chief

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