Mathematical Models in Engineering:
Continuous Learning with Python

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Abstract
In the context of academic activities aimed at teaching, using and developing mathematical methods in engineering (especially computer science and telecommunications engineering), we have been experiencing with Python as an interlingua for enforcing continuous learning. In the teaching of topics that can be broadly labeled as signal processing, with special emphasis on error-correcting codes or data and image compression, we will briefly describe our scheme for in-class-labs and weekly assignments, and the remarkable effects on attendance, participation and teacher-student communications [1]. In research, which can also be seen as a form of continuous learning, the advantages of using Python will be illustrated in relation to the exploration of error-control coding: block coding, as in [2], and convolutional coding, particularly in the new brand of convolutional Goppa encodings [3], [4].

References