**Introduction to the Theory of Programming Languages**

Gilles Dowek 2010-12-09

The design and implementation of programming languages, from Fortran and Cobol in the 1960s to Caml and Java, has been one of the key developments in the management of ever more complex computerized systems. *Introduction to the Theory of Programming Languages* gives the reader the means to discover the tools to think, design, and implement these languages. It proposes a unified vision of the different formalisms that permit definition of a programming language: small steps operational semantics, big steps operational semantics, and denotational semantics, emphasizing that all seek to define a relation between three objects: a program, an input value, and an output value. These formalisms are illustrated by presenting the semantics of some typical features of programming languages: functions, recursivity, assignments, records, objects, ... showing that the study of programming languages does not consist of studying languages one after another, but is organized around the features that are present in these various languages. The study of these features leads to the development of evaluators, interpreters, and also type inference algorithms, for small languages.

**Electric Circuits**

Nilsson 2000-08

The fourth edition of this work continues to provide a thorough perspective of the subject, communicated through a clear explanation of the concepts and techniques of electric circuits. This edition was developed with keen attention to the learning needs of students. It includes illustrations that have been redesigned for clarity, new problems and new worked examples. Margin notes in the text point out the option of integrating PSpice with the provided Introduction to PSpice, and an instructor’s roadmap (for instructors only) gives an overview of homework problems by approach. The author has also given greater attention to the importance of circuit memory in electrical engineering, and to the role of electronics in the electrical engineering curriculum.