Software Engineering in Higher Education II

EDITORS:

J.-L. Usó
Universitat Jaume I, Spain

P. Mitic
Consultant, Wessex Institute of Technology, UK

L.J. Sucharov
Wessex Institute of Technology, UK
CONTENTS

Section 1: Educational Issues

Object-oriented design in power engineering education
P.M. Viersen, R. Hoeve, J.P. Rey, R. van Duivenbode

The development of the technical, professional and personal competencies of software engineering students through work based learning
L. Neal

Encouraging the development of transferable skills through effective group project work
S. Smith, M. Mannion, C. Hastie

A new teaching strategy for software engineering
C.S. Johnson

Organisational and practical issues in providing a multimedia workshop
M. Brooks, N. Reeves

Representing model classes in C++
C. Hastie

Teaching software development: a case history
C.S. Johnson

Establishing education for engineers of information technology at the University of Miskolc
D. Vadász, L. Ficsor

Core requirements for a degree course in software engineering
Z. Mahmood

The teaching of RAD skills
R.M. Kinmond, K.S. Kinmond

OBJECTive teaching: an experience in teaching object-oriented technology
S. Ashok

The educational modeling contributions to the software engineering teaching according to the experience in the new computer schedule of courses at the University Jaume I
O. Coltell-Simón, C. Campos-Sancho
Maturity, motivation and effective learning in projects - benefits from using industrial clients
C. Johansson, P. Molin

Learning construction in architecture with hypermedia systems: the case of reinforced concrete
J. Bustinza, A. Fernández

An approach to process control software education
V. Jovan, J. Petrovič, M. Rihar

Role of case study in software engineering course
M. Rihar, V. Jovan

Plagiarism in programming: a review and discussion of the factors
J. Traxler

Experiences in teaching principles of programming languages using a software tool
V. Žumer, M. Mernik, N. Korbar

A course in management of glazed tile industry. Programming using RPG
M.P. Ramo

A novel course in structured systems analysis through Prolog
M.P. Lee

Presence of software engineering in Spanish university computer science curriculums
N. Juristo, E. Tovar

From Supermario to Sonic the Hedgehog - the philosophy of multimedia attraction in a video games context
D. Blackburn

A knowledge based system for application in the area of civil construction
M. da Graça Pereira

An expert teaching system applied in the calculus studies
M. da Graça Pereira, M. Buss Gonçalves

Section 2: Engineering Software

Diverse computational graphics techniques for visualizing antenna radiation patterns
Y.S. El-Gamal, M.A. Aboul-Dahab, S.M. Abdel-Wahab

Design, properties and applications of a neural tree classifier
J. Voráček
Intelligent design systems of elevation mechanism
R. Tucho, J.M. Sierra, E. Fernández, R. Vijande, D. García

Numerical solutions to arbitrarily sized systems of coupled first order ordinary differential equations using computer algebra software
P. Mitic, P.G. Thomas

A review of spatial statistics selection software
J. Mateu, J.L. Usó

AMK: an interface for object-oriented Newtonian particle mechanics
P. Mitic, P.G. Thomas

Digital image processing - an object-oriented approach
D.I. Roman, M.H. Fisher, J. Cubillo

Communication protocols verification with Esterel
J. Graña Gil, M. Vilares Ferro, R. Bernhard

Use of the symbolic concurrent programming Erlang to test the integrated digital networks access
V. Dobrota

Section 3: Software Engineering

NOCAT - a normalisation CASE tool
P. Pouyioutas

The role of a hybrid method in the teaching of object-oriented analysis and design
S. Wade

A meta-model for generic object-oriented CASE tool
N.V. Balasubramanian, C.H.K. Tsang

Understanding the programming techniques for client-server architectures
V. Dobrota, S.D. Bate, M. Cosma, D. Zinca

A knowledge based multimedia system for a general cognitive architecture
F.A.P. Fialho, C.C.S.R. Coelho

Training for structured software development: defining some measurable steps for the design process
K.R.S. Murthy

A first course in object-oriented programming using Oberon
V. Mahnič, B. Vilfan
Practicum: information-systems development
H. Luden

Choice space conception for knowledge representation
S.I. Shumov

Artificial intelligence education for software engineers
B. Lees

Prolog as an intermediate metafile format within the software engineering life cycle
M.P. Lee

A practical introduction to data communications
L. Hughes

Object-based semantics for natural language engineering in higher education
J. Johnson

Conciliating software engineering principles with a student-controlled environment
R. Lelouche

Index of Authors