Gruner, Stefan
Abstraction, refinement, enrichment. (English) Zbl 1291.68101

Summary: In the no longer existing South African journal Quæstiones Informaticæ the paper [“An approach to defining abstractions, refinements and enrichments”, Quaest. Inf. 6, No. 4, 174–178 (1989)] was published by D. G. Kourie more than twenty years ago. At some occasion, about two years ago, Derrick Kourie had asked and encouraged me to review his original topics, such as to re-construct and represent them from a different perspective. In this festschrift chapter, in honour of Derrick Kourie’s 65th birthday, I outline the results of my attempt at fulfilling Derrick Kourie’s collegial request. For this purpose I shall first recapitulate the key concepts of Kourie’s original paper, since that paper has more or less fallen into oblivion and cannot be easily retrieved from the public domain anymore. Thereafter Kourie’s notions of abstraction, refinement and enrichment are re-defined in a different (more classical) theoretical framework. Finally those notions are contextualised with respect to the related notion of retrenchment developed since the mid-1990s by Banach, Poppleton, et al.

For the entire collection see [Zbl 1276.68018].

MSC:
68N01 General topics in the theory of software
03B50 Many-valued logic