Title: Reka bentuk dan pembinaan sistem sokongan perancangan untuk unjuran dan agihan reruang penduduk bandarkajian kes: Majlis Bandaraya Johor Bahru

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Abstract:

This thesis discusses a research regarding the requirement to set up a Planning Support System (PSS), as a new method to enhance the urban and regional planner' s performance in the era of information technology development. Since PSS consists of a vast research spectrum, this study would only focus on the set up of a PSS for population forecasting and its spatial distribution (PSS-Population). PSS is basically a new technology; therefore this research serves two purposes. Firstly, it is to join in the researches that are aggressively being done by international planning research institutions. Secondly, it is to set up a working prototype of PSS-Population that would be suitable for the local context. Based on the literature review, it is concluded that PSS is a computer system which consists of three components: Database, Model-base and User-dialogue. The basic function of a PSS is to support and facilitate planners in the process of retrieving data, analyzing and forecasting of the urban activities and provide user a dialogue system to facilitate planners steering PSS in using his judgement, experience and intelligence towards producing a more satisfying decision. Since town planning is spatial planning, in order to give a spatial dimension for the population forecasting, a forecasting model for population distribution has been prepared for the Model-base component of PSS-Population. Based on data and information of the Johor Bahru City Council and application of relevant statistical techniques, all parameters, assumptions and variables used in building the model has been tested and found that all of them are also applicable in the local context. In conclusion, this study has been successful in formulating the concept and structure of PSS which has been used to build a PSS-Population. PSS-Population has been tested and found suitable to be applied locally. Thus the output of this study could be used as an alternative answer to the issue of the concept and structure of PSS which is still being debated internationally.