Project proposal

Project title	Sustainable Energy Efficient Dwellings
First Supervisor	Professor — M Limbachiya
Second Supervisor	Dr H Kew
School	Civil Engineering and Construction
Other member of supervisory team (no more than three KU supervisors in total)	Dr D Wertheim
Specific requirements beyond 2:1 degree	

Project summary

(max 4,000 characters)

The development of sustainable communities is increasingly become a key requisite for the future prosperity throughout the world. At present, there are numerous communities in which the legacy housing stock is neither meeting the social needs of the inhabitants nor the economic needs in terms of affordable comfort using acceptable energy sources. It is clear that at the current rate of dwelling construction within the EU and beyond there will be a significant shortage of dwellings and an inadequate rate of replacement of the existing stock of dwellings unless urgent action is taken. A key priority is the need to integrate innovative energy efficient technical solutions into cost effective methods of construction so that government departments and regulatory bodies are able to offer affordable dwellings capable of being integrated into self sustaining communities. A particular emphasis of this extensive research will be to involve pre-accession areas/ countries which have some of the most serious problems in relation to post-war housing estates, both in terms of large quantity and relatively low quality. The specific measurable objectives will be developed to address the issue, and develop examples of the best practice guidelines for dissemination to the construction industry, to architectural firms, developers, housing associations, regulatory bodies and to local, as well as regional governmental authorities.