

**“Greening” Architecture Design Education:
A Proposed Framework for Saudi Arabia**

Mohammed A. Alosan

Dissertation submitted to the faculty of the Virginia Polytechnic Institute and State University in
partial fulfillment of the requirements for the degree of

Doctor of Philosophy

In

Architecture and Design Research

James R. Jones (Committee Chair)

Robert P. Schubert

Daniel R. Dunlap

Elizabeth J. Grant

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Blacksburg, VA

Keywords: Western Knowledge, Saudi Arabia Context, Knowledge, Green Architecture design,
Educational Framework

MEMORANDUM

DATE: April 30, 2015
TO: James R Jones, Mohammed Abdulrahman Aloshan
FROM: Virginia Tech Institutional Review Board (FWA00000572, expires April 25, 2018)
PROTOCOL TITLE: "Greening" Architecture Design Education: A Proposed Framework for Saudi Arabia
IRB NUMBER: 15-485

Effective April 30, 2015, the Virginia Tech Institutional Review Board (IRB) Chair, David M Moore, approved the New Application request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<http://www.irb.vt.edu/pages/responsibilities.htm>

(Please review responsibilities before the commencement of your research.)

PROTOCOL INFORMATION:

Approved As: **Expedited, under 45 CFR 46.110 category(ies) 5,6,7**
Protocol Approval Date: **April 30, 2015**
Protocol Expiration Date: **April 29, 2016**
Continuing Review Due Date*: **April 15, 2016**

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

Date*	OSP Number	Sponsor	Grant Comparison Conducted?

* Date this proposal number was compared, assessed as not requiring comparison, or comparison information was revised.

If this IRB protocol is to cover any other grant proposals, please contact the IRB office (irbadmin@vt.edu) immediately.

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
Informed Consent for Participants
in Research Projects Involving Human Subjects

Title of Project: "Greening" Architecture Design Education: A Proposed Framework for Saudi Arabia

Principal Investigator: Prof. James Jones **Jajone10@vt.edu** **T.: (540) 231-7647**

Investigator: Mohammed Aloshan **aloshan@vt.edu**

I. Purpose of this Research Project

The purpose of this research is to develop a new knowledge-based educational framework for green building design in Saudi Arabia. The research will examine knowledge domains, knowledge structuring and sequencing, and learning theory. Saudi Arabian architectural education is in need of a new educational framework for environmental responsive design. This study seeks to reveal how knowledge related to green building knowledge can be structured and strategically implemented into architectural design education in Saudi Arabia. Interviews will help the researcher achieve and improve the validity and accuracy of the study's assessment of current western knowledge (Green Architecture Design). The interview was designed to allow the subject to express his or her experience with green architecture knowledge within the context of a specific case study.

II. Procedures

The interview will be conducted face-to-face or over the phone/by skype as a mix of semi-structured questions. The interview duration will be between 30-45 minutes. The interviews will take place in an environment that is agreed upon and comfortable to both participant and researcher, and is guaranteed to protect the participant's privacy. Each interview will be recorded, and transcribed by the research member who conducted the interview. Transcripts of interviews will be coded to identify emerging themes. All information collected from practitioners will be confidential.

III. Risks

Completing the interview involves no risk to you. No service of any kind, to which you are otherwise entitled, will be lost or jeopardized if you choose to "not participate" in the study. Your consent is being given voluntarily. You may refuse to participate in the interview. If you decide to participate in the interview, you are free to withdraw at any time without any negative effect on you relations with us.

IV. Benefits

No promise or guarantee of benefits has been made to encourage you to participate. No tangible or intangible benefits will be granted to you. However, after the dissertation is done, the researcher will share a copy of his dissertation with the interviewees, if they would like.

V. Extent of Anonymity and Confidentiality

At no time will the researchers release identifiable results of the study to anyone other than individuals working on the project without your written consent. The data collected from the participants will be confidential, including their identifying information (e.g., name, e-mail address). Participants remained

anonymous and will be only identified by their codes (A, B, C, and so on). The researcher will store interview recordings and transcriptions in secure locations. Confidential materials will be accessible only to the researcher, his advisor, and the corresponding interviewees. The recordings and transcriptions will be destroyed when the researcher deemed the study complete.

The Virginia Tech (VT) Institutional Review Board (IRB) may view the study's data for auditing purposes. The IRB is responsible for the oversight of the protection of human subjects involved in research.

VI. Compensation

Please be inform that no compensation is to be earned, subjects must be so informed.

VII. Freedom to Withdraw

It is important for you to know that you are free to withdraw from this study at any time without penalty. You are free not to answer any questions that you choose or respond to what is being asked of you without penalty.

Please note that there may be circumstances under which the investigator may determine that a subject should not continue as a subject.

Should you withdraw or otherwise discontinue participation, you will be compensated for the portion of the project completed in accordance with the Compensation section of this document.

VIII. Questions or Concerns

Should you have any questions about this study, you may contact one of the research investigators whose contact information is included at the beginning of this document.

Should you have any questions or concerns about the study's conduct or your rights as a research subject, or need to report a research-related injury or event, you may contact the VT IRB Chair, Dr. David M. Moore at moored@vt.edu or (540) 231-4991.

IX. Subject's Consent

I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

_____ Date _____
Subject signature

Subject printed name