St. PETER'S UNIVERSITY

St. PETER'S INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Declared under Section 3 of the UGC Act. 1956) AVADI, CHENNAI – 600 054.

MINUTES OF THE 8th MEETING OF THE BOARD OF STUDIES IN **B.ARCH**

Held on 14.03.2017

Members Present

| S.No | Name | Designation | Member | Signature |
|------|-------------------|-------------------------|--------------------|-----------------|
| 1. | Ar Vasudevan T J | Director and HOD | Chairman | Vanderon. E. In |
| 2. | Ar Lashba Paulraj | Design Chair | Member | A months |
| 3. | Ar P.Kanimozhi | Associate Professor | Member | M. Josephing. |
| 4. | Ar Ashwini Hebsur | Assistant Professor | Member | Shuini |
| 5. | Ar D.Mugundhan | Assistant Professor | Member | D. cll. af |
| 6. | Ar Mushtaq Ahmed | Practicing Architect | External Member | MAlun. |
| 7. | Ar Sethu | Practicing Architect | External Member | A Comula- |

Chairman

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600 054

St. Peter's Institute of Higher Education and Research Ceemed to be University U/S 3 of the UGC Act. 1954. Avadi, Chennai-600 054 8.1 **Considered** the minutes of the 7th meeting board of studies in Architecture department held on 22.8.2016.

Resolved that the minutes of the 7th meeting board of studies in Architecture department held on 22.8.2016 be confirmed

8.2 **Reviewed** the regulation and syllabi of B.Arch programme under the regulation 2013 with Choice Based Credit System (CBCS).

Resolved that the regulation and syllabi of B.Arch programme under the regulation 2013 with Choice Based Credit System (CBCS) be continued be continued taking into consideration of the suggestions and remarks given by the members to include the following new Elective courses (Appendix - I)

1.Low energy passive design & Positive active design 1013ART03

8.3 **Reviewed** the proposal of curriculum and sylabi of regulation 2017 effective for the students to be admitted from 2017 – 2018

Resolved that the regulation and syllabi of B.Arch programme under the regulation 2017 for the I and II semester be confirmed with the following changes.

 Model making and Architectural Delineation proposed in the first semester shall be shifted to the second semester considering the advantage of understanding the architectural design-I, wherein single unit space can be easily understood through simple special models.

For theory courses the Continuous assessment marks shall be 25% and End assessment marks shall be 75%

- For theory cum studio courses, the ontinuous assessment marks shall be 40% and End assessment marks shall be 60%

- For practical / Studio courses, the Continuous assessment mark shall be 60% and End assessment mark shall be 40

Date: 14.03.2017

Chairman

and with

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APPENDIX - I

1013ART03 LOW-ENERGY DESIGN & POSITIVE ACTIVE DESIGN

OBJECTIVES:

 To understand the operation of passive systems of environmental control in buildings and their impact on the performance of the interior space and comfort of the occupant.

OUTCOMES:

Students should be able to plot comfort parameters for a location on a psychometric chart, estimate thermal performance of a building envelope, and propose a passive design strategy for space conditioning of a building.

UNIT I HUMAN COMFORT

Thermal comfort and heat balance; comfort scales and bioclimatic/psychometric chart; thermal comfort standards; adaptive factors and clothing insulation.

UNIT II NATURAL VENTILATION BUILDING INSULATION

Building heat exchange; u-values for wall, roofs, and fenestration; envelope insulation and thermal mass performance; glazing solar heat gain coefficient and visible transmittance. Wind passage through the building skin, wind speed and temperature attenuation.

UNIT III PASSIVE STRATEGIES

Passive heating and cooling strategies; courtyards and placement of openings; stack and wind assisted natural ventilation; role of landscaping and water elements.

UNIT IV ENERGY CONSERVATION

Energy crisis and global initiatives; India's climate change agenda and developmental plans; guidelines and regulatory mechanisms; embodied energy, carbon emissions.

UNIT V RENEWABLES & INTELLIGENT SYSTEMS

Solar, wind, geothermal energy; biomass and waste to energy systems; combined heat and power and district cooling; architectural implications of renewable energy systems. Introduction to intelligent buildings; building automation, sensors and controllers; building management systems; introduction to smart grids.

REFERENCES

- 1. National Action Planfor Climate Change, Prime Minister's Office, Govt. of India Chapter 11,
- 2. National Building Code by BIS Energy Conservation Building Code, 2007, BEE Jenkins,
- 3. Renewable Energy Systems

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