



THE LIGHTWEIGHT STRUCTURES ASSOCIATION OF AUSTRALASIA INC.

The Association was created from the well established Membrane Structures Association of Australasia (MSAA) at its fourteenth Annual General Meeting on 17th July, 1994 held at the University of New South Wales in Sydney.

MSAA was founded in 1981 and had since contributed substantially to the wide spread use of pre-stressed tension, air-supported fabric membrane structures and shade cloth structures.

As the MSAA evolved and was attracting interest from the wider scope of technologically innovative lightweight structures such as cablenets, high tech glazing facades, it was decided to transform into the Lightweight Structures Association of Australasia.

AIMS

The Association is an autonomous, inter-disciplinary group of interested parties involved in the field of lightweight structures with the basic aim of promoting the proper application of lightweight structures, their design fabrication, construction and materials, and the development of these and other aspects particular to lightweight structures.

CONTEXT AND DEFINITION

Typical lightweight structures include cable, membrane (tent and pneu), shell and folded structures as well as space grids, braced vaults and domes, and arched, stayed and trussed systems. Lightweight structures are widely employed in architecture, engineering, building construction as well as in other, associated, areas such as aircraft, motor vehicle and boat/ship construction. They may be used as primary or as secondary/tertiary load bearing systems such as advanced glazing or cladding systems in building. While it is difficult to assign a single all-encompassing definition, the following should suffice:

A lightweight structure can be termed as such, when, regardless of the type of material employed, the shape of the structure is determined through an optimization process involving a critical loading case as a primary parameter for optimization – consequently the self-weight of the structure is a small portion of the applied load.

As a direct result, the spanning capability increases, while material input and therefore weight decrease, independent of the scale the structure is more economical in terms of material usage.

Lightweight structures often utilize lightweight and high strength materials such as composites as well as advanced technologies for their design and construction. They are recognized for their aesthetic appearance and their innovative character.

OBJECTIVES

The objectives of the Association are:

- To establish itself as a reference body on lightweight structures.
- To collect and disseminate information in the field of its members, encouraging the exchange of information between members and those interested, through publications and the organization of meetings, seminars and conferences.
- To promote the proper application of lightweight structures.
- To contribute towards implementation of suitable guidelines for the design, analysis, fabrication, construction and application of lightweight structures.
- To encourage research and development in the field.
- To maintain links with international institutions and groups to update technology and information.
- To promote the services and products of the members.

August 2016



MEMBERSHIP TYPES

Membership of the Association shall consist of interested parties involved in the field of lightweight structures, and are to be divided into the following main categories, which are each subdivided into the interest groups as hereinafter described.

Company Membership

Architectural, engineering or designing consultant companies
Fabricators and specialist contractors
Material manufacturers and suppliers
Federal, state and local government departments.

Individual Membership

Individual architects
Individual engineers
Individual employees from the above government departments
Researchers and educators
Other interested individuals including users and owners.

Student membership

Students of architecture, engineering or associated disciplines who are currently enrolled in a tertiary teaching institution.

Honorary Membership

Outstanding individuals in the field.

ADMINISTRATION

The affairs of the Association are directed by the Members in (Annual) General Meeting and administered by elected Office bearers which are supported by an elected Committee and a part-time Executive Officer.

The office bearers of the Association are:

President
Vice President
Secretary
Treasurer

ELECTION OF OFFICE BEARERS AND OF COMMITTEE MEMBERS

Office bearers and Committee Members are elected at Annual General Meetings.

Elected members must be current financial company, individual or honorary members of the Association.

WORKING GROUPS

Working Groups are appointed by the Committee as required for specific tasks.

Standing Working Groups of the Association include Conference, Marketing and Technical.

The Technical Working Group is currently developing two documents: Guidelines for Design, Fabrication and Installation of Tension Membrane and Shade Structures and also Design Handbook for Tensioned Membrane Structures.

These are headed by appointed Chairpersons. Chairpersons may co-opt other members as appropriate.

APPLICATION FOR MEMBERSHIP

Applications are invited from all interested persons for one of the established membership categories by contacting one of the members below or by writing to the Secretary of the Association at the address below. Applications should be in writing, include the prescribed fee and be supported by another financial member of the Association. Acceptance of an application is by Committee decision.

Telephone enquiries and requests for Membership Application Forms should be directed to the Secretary at the address below.

Further information and forms can be found on the website www.lsaa.org

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