

# Journal

of Achievements in Materials  
and Manufacturing Engineering



Published monthly as the organ of the World Academy of Materials and Manufacturing Engineering

Editor-in-Chief Prof. Leszek A. Dobrzański

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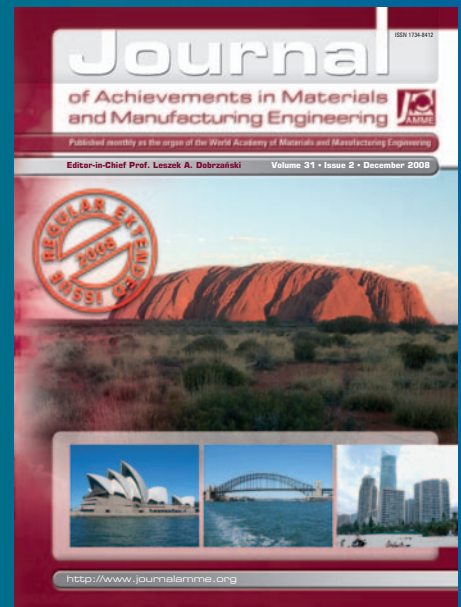
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## Cover story

The World Academy of Materials and Manufacturing Engineering WAMME carries out the close cooperation with many scientific centres in various continents and numerous international organisations. Among many academic centres the cooperation with scientists from the Queensland University of Technology in Brisbane and the Swinburne University of Technology in Melbourne in Australia for last two years takes a prominent place. Australia, officially the Commonwealth of Australia, is a country in the



southern hemisphere comprising the mainland of the world's smallest continent, the major island of Tasmania, and numerous other islands in the Indian and Pacific Oceans. The population is just over 21.3 million, with approximately 60% concentrated in and around the mainland state capitals of Sydney, Melbourne, Brisbane, Perth, and Adelaide. The Indigenous population – mainland Aborigines and Torres Strait Islanders – was 410,003 (2.2% of the total population) in 2001. Australia's landmass of 7,617,930 square kilometres is on the Indo-Australian Plate. Australia has 34,218 kilometres of coastline (excluding all offshore islands). Technologically advanced and industrialised, Australia is a prosperous multicultural country and has good results in many international comparisons of national performance. Australia is one of the most laissez-faire capitalist economies, according to indices of economic freedom. There is a quarrel what is the most often in the World associated with the most recognisable icon of Australia. It seems that it can be acknowledged that it is one of three objects given below.

Uluru is one of Australia's most recognisable natural icons. On the cover Uluru in the light of sunset is seen. Uluru, also referred to as Ayers Rock, is a large sandstone rock formation in the southern part of the Northern Territory, central Australia. It lies 335 kilometres south west of the nearest large town, Alice Springs; 450 kilometres by road. Uluru stands 348 metres high (863 metres above sea level) with most of its bulk below the ground, and measures 9.4 kilometres in circumference. Kata Tjuta (The Olgas) and Uluru are the two major features of the Uluru-Kata Tjuta National Park. Both Uluru and Kata Tjuta have great cultural significance for the Anangu Traditional landowners. Uluru is sacred to the Pitjantjatjara and Yankunytjatjara, the Aboriginal people of the area. It has many springs, waterholes, rock caves and ancient paintings. It is notable for appearing to change colour as the different light strikes it at different times of the day and the year, with the sunset a particularly remarkable sight when it briefly glows red. Although rainfall is uncommon in this semi-arid area, during wet periods the rock acquires a silvery-grey colour, with streaks of black algae forming on the areas that serve as channels for water flow.

The Sydney Opera House (seen in the first small picture on the cover) is located in Sydney, New South Wales, Australia, on Bennelong Point in Sydney Harbour, close to the Sydney Harbour Bridge (seen in the next small photo on the cover). "There is no doubt that the Sydney Opera House is a masterpiece.