

# 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

Volume 38 • Issue 1 • January 2010





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and Manufacturing Engineering

**PUBLISHED SINCE 1992**

formerly as **Proceedings on  
Achievements in Mechanical  
and Materials Engineering**

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

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The efforts to achieve the financial support of the Journal in 2010 from the Ministry of Science and Higher Education in Poland have begun.

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The Journal is registered by the Civil Department of the District Court in Gliwice, Poland at number 279.

## Publisher



Gliwice 44-100, Poland  
ul. S. Konarskiego 18a/366  
e-mail: info@journalamme.org

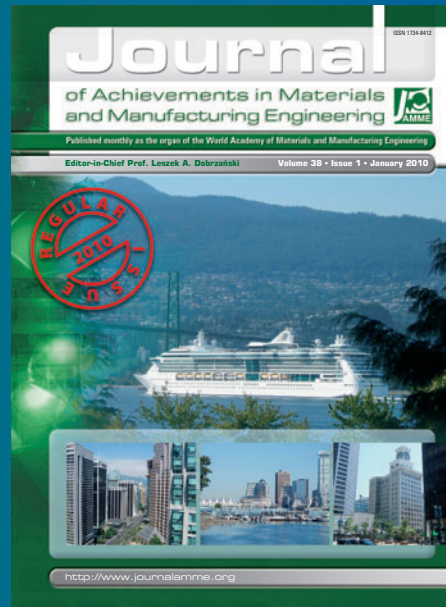
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Bank name: ING Bank Śląski  
Bank address: ul. Zwycięstwa 28, 44-100 Gliwice, Poland  
Account number/ IBAN CODE: PL76105012981000002306809767  
Swift code: INGBPLPW

Gliwice – Campinas – Portland – Madrid – Daejeon – Brisbane – Cairo

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The paper used for this Journal meets the requirements of acid-free paper  
Printed in Poland

## Cover story

In few weeks time we enter the new year 2010. For many people all over the world the year 2010 will be a special one, because already on 12<sup>th</sup> February 2010 the 21<sup>st</sup> Olympic Winter Games, which official host city will be Vancouver, BC in Canada, will begin. That is why on the cover of the given issue of the Journal we demonstrate a few pictures, but from sunny, summer, not winter Vancouver, made relatively not long ago during one of many scientific conferences which took place every year in that beautiful city. Vancouver is a coastal city located in the Lower Mainland of British Columbia, Canada. Archaeological records indicate the presence of Aboriginal people in the Vancouver area from 8,000 to 10,000 years ago. The city is located in the traditional territories of the Coast Salish group peoples. They had villages in various parts of present-day Vancouver. The first European to explore the coastline of present-day



Point Grey and parts of Burrard Inlet was José María Narváez of Spain, in 1791, although Samuel Bawlf contends that Francis Drake may have visited the area in 1579. British Captain George Vancouver explored the inner harbour of Burrard Inlet in 1792 and gave various places British names. The name of the city comes from the Dutch "van Coevorden", denoting somebody from Coevorden, a city in the Netherlands. The explorer and North West Company trader Simon Fraser and his crew were the first known Europeans to set foot on the site of the present-day city. In 1808, they travelled from the east down the Fraser River, perhaps as far as Point Grey, near the University of British Columbia. The Fraser Gold Rush of 1858 brought over 25,000 men, mainly from California, to nearby New Westminster founded in 1859 on the Fraser River, on their way to the BC interior, bypassing what would become Vancouver. Vancouver is among British Columbia's youngest cities; the first European settlement in what is now Vancouver was not until 1862 at McLeery's Farm on the Fraser River, just east of the ancient village of Musqueam in what is now Marpole. A sawmill established at Moodyville (now the City of North Vancouver) in 1863, began the city's long relationship with logging. It was quickly followed by mills owned by Captain Edward Stamp on the south shore of the inlet. Stamp, who had begun lumbering in the Port Alberni area, first attempted to run a mill at Brockton Point, but difficult currents and reefs forced the relocation of the operation to a point near the foot of Gore Street. This mill is known as the Hastings Mill. Logging sawmills established in 1867 in the area known as Gastown became the nucleus around which the townsite grew. In 1870, the colonial government surveyed the settlement and laid out a townsite, renamed "Granville" in honour of the then-British Secretary of State for the Colonies, Lord Granville. This site, with its natural harbour, was eventually selected as the terminus for the Canadian Pacific Railway to the disappointment of Port Moody, New Westminster and Victoria, all of which had vied to be the railhead. A railway was among the inducements for British Columbia to join the Confederation in 1871. The City of Vancouver was incorporated on 6 April 1886. The Great Vancouver Fire on 13 June 1886, razed the entire city. The Vancouver Fire Department was established that year and the city quickly rebuilt. By 1887, the transcontinental railway was extended to the city to take advantage of its large natural seaport, which soon became a vital link in a trade route between the Orient, Eastern Canada, and London. Vancouver's streetcar system began on 28 June 1890 and ran from the (first) Granville Street Bridge (seen in the main picture on the cover) to Westminster Avenue (now Main Street and Kingsway). Vancouver merchants outfitted prospectors bound for the Klondike Gold Rush in 1898. One of those merchants, Charles Woodward, had opened the first Woodward's store at what is now Georgia and Main Streets in 1892 and, along with Spencer's and the Hudson's Bay department stores, formed the core of the city's retail sector for decades. At present the area of the City of Vancouver is 114.67 km<sup>2</sup> and of the Regional District Metro Vancouver is 2,678.52 km<sup>2</sup>. Population of the City is about 575 thousands people and of the Metro about 2.1 million people. The Port Metro Vancouver is now the busiest and largest in Canada, as well as the fourth largest harbour in North America. Vancouver has ranked highly in worldwide "livable city" rankings for more than a decade according to business magazine assessments. Vancouver is one of the nation's largest industrial centres. The Port of Vancouver is Canada's largest and most diversified. Vancouver is also the headquarters of forest product and mining companies. In recent years, Vancouver has become an increasingly important centre for software development, biotechnology and a vibrant film industry. The city's scenic location makes it a major tourist destination. The Vancouver School Board enrolls more than 110,000 students over its elementary, secondary, and post secondary institutions, making it the second largest school district in the province. Greater Vancouver is home to two major public universities, the University of British Columbia (UBC) and Simon Fraser University (SFU), where more than 80,000 undergraduates, graduates, and professional students. The British Columbia Institute of Technology, which provides polytechnic education, Vancouver Community College, and Langara College are publicly funded college-level institutions, and are augmented by private institutions, and other colleges in the surrounding areas of Metro Vancouver that provide career, trade, and university-transfer programmes, notably Douglas College and Capilano University. The Emily Carr University of Art and Design grants certificates, diplomas, and degrees in art and design, while the Vancouver Film School provides a one-year curriculum in film production.