

# Editorial



Since 1974 Brazilian Congress of Materials Engineering and Science – Congresso Brasileiro de Engenharia e Ciência dos Materiais – CBECiMat has been organised biyearly. In the period of 24<sup>th</sup>-28<sup>th</sup>, November 2008 in Porto de Galinhas – PE in Pernambuco State in Brazil yet the 18<sup>th</sup> Congress of that series took place. The Organisers of those Congresses are metallurgical, materials, ceramic and polymer associations such as: Associação Brasileira de Metalurgia e Materiais (ABM), Associação Brasileira de Cerâmica (ABC) e a Associação Brasileira de Polímeros (ABPol), acting in Brazil. Each of Congresses is an important forum for discussions about the perspectives of the development of materials science and the industry of materials engineering and numerous participate in it both the representatives of scientific societies and also the engineering and technical staff of the industry. Each time over 1000 participants from Brazil and also foreign guests usually participate in that Congress. It was the same also this time. The main organiser of the 18<sup>th</sup> CBECiMat was the Federal University of Pernambuco – UFPE, and the President of the Congress was Prof. Severino Leopoldino Urtiga Filho from that University. I had pleasure and honour to participate in that important scientific event and present a plenary one-hour invited lecture on "Laser surface treatment of the light metals' alloys and tool steels" on his invitation. Of course, the WAMME Fellow and Vice President – Prof. Maria Helena Robert, under whose supervision the Chairman of the Congress made a PhD thesis a few dozen or so years ago, participated in the Congress.

The seat of the Congress was the fabulous localisation in Summerville Resort Hotel in Porto de Galinhas – PE, Brasil, on the Atlantic Ocean shore, in the heart of Pernambuco State. It is famous for being one of the most beautiful beaches of the Brazilian coast, with warm clear water pools scattered around its coral reefs, estuaries, mangroves, coconut trees and a number of other samples of abundant nature richness. The proximity of the Equator guarantees an entire year of sun, with average temperatures of 26°C. Pernambuco is located in the Northeast region of Brazil. There are about 185 kilometres of Atlantic Ocean beaches, some of the most beautiful in the country. Pernambuco comprises a comparatively narrow coastal zone, a high inland plateau, and an intermediate zone formed by the terraces and slopes between the two. Originally inhabited by various indigenous peoples, Pernambuco was first settled by the Portuguese in the 16<sup>th</sup> century. Due to the cultivation of sugar and cotton, Pernambuco was one of the few prosperous captaincies. With the support of the Dutch West India Company, sugar mills were built and a sugar-based economy developed. In 1612, Pernambuco produced 14,000 tons of sugar; in the 1640s, more than 24,000 tons of sugar were exported to Amsterdam alone.

Pernambuco State has the 5<sup>th</sup> highest sugarcane Brazilian production today. The gentle hills covered with great stretches of light green sugarcane, although in some places prepared already for harvest, in others just after harvest, and in others else yet beginning vegetation, make a great impression for a stranger travelling by car to Porto de Galinhas – PE from a modern Recife/Guararapes – Gilberto Freyre International Airport opened in July 2004, as the second largest airport in the North and Northeast regions of Brazil. Brazil is by far the largest producer of alcohol fuel in the world, typically fermenting ethanol from sugarcane and sugar beets. The country produces a total of 18 billion litres annually, of which 3.5 billion are exported, 2 billion of them to the USA. Alcohol-fuelled cars started in the Brazilian market in 1978 and became quite popular. From 2004 on, alcohol is rapidly increasing its market share because of new technologies involving hybrid fuel car engines called "Flex", working with gasoline, alcohol or any mixture of both fuels. As of February 2007, approximately 80% of new vehicles sold in Brazil are hybrid fuel. The economy of the Pernambuco State is based on agriculture (sugarcane and manioc), livestock farming and creations, as well as industry (alimentary, chemical, metallurgical, electronic, textile). In the period of October 2005 to October 2006, the industrial growth of the state was the second biggest in Brazil – 6.3%, more than double the national average in the same period (2.3%). Another segment that deserves to be highlighted is mineral extraction.

Recife is the capital of the Pernambuco State and the fourth largest Metropolitan area in Brazil. The name Recife means "reef" in Portuguese, in allusion to the coral reefs that are present by the city's shores. The heart of Recife is formed by three islands (Recife, Santo Antônio, and Boa Vista) located between the Beberibe River meeting the Capibaribe River to flow into the Atlantic Ocean. The many rivers and bridges found in Recife gives it the moniker of the "Brazilian Venice". Recife is one of Brazil's prime business centres, largely because it has two ports. One is located in the town itself, and

the other, the port of Suape, is located about 40 kilometres away. Recife has an area dedicated to information technology called Digital Port. It was founded in July 2000 and has since attracted major investments. Software manufacturing is the main activity in the Porto Digital. Porto Digital's start-ups can count on a ready pool of talent, courtesy of the Federal University of Pernambuco, which boasts one of the best computer-science departments in all of Latin America. Recife, has one of most beautiful urban areas of the country, Boa Viagem. Together with its neighbouring city of Olinda, it is one of the most cosmopolitan cities in the north-eastern part of Brazil. Both have Portuguese architecture, with secular casarões and churches, and kilometres of beaches and much culture. Olinda is a historic city in the Brazilian Pernambuco State, located on the country's north-eastern Atlantic Ocean coast, just north of Recife and south of Paulista. It is one of the best-preserved colonial cities in Brazil.

The city's name can be interpreted as an exclamation regarding the beauty of its setting ("Ó, linda!" is Portuguese for "Oh, beautiful!"). Olinda features a number of major tourist attractions, such as a historic downtown area (World Heritage Site) and churches.

The four-day period before Lent leading up to Ash Wednesday is carnival time in Brazil yearly. Pernambuco has large Carnival celebrations. Recife's joyous Carnival is nationally known and admired, attracting thousands of people every year. The party starts a week before the official date, with electric trios "shaking" the Boa Viagem district. On Friday, people take to the streets to enjoy themselves to the sound of frevo and to dance with maracatu, ciranda, caboclinhos, afoxé, reggae and manguêbeat groups, going in for famous carnival music style from Pernambuco. There are still many other entertainment centres around the city, featuring local and national artists. One of the highlights is Saturday when more than one million people follow the Galo da Madrugada group.

The Carnival of Olinda is a popular street party, very similar to traditional Portuguese carnivals, with the addition of African influenced dances. All the festivities are celebrated on the streets, and there are no bleachers or roping. There are hundreds of small musical groups in many genres, including the frevo and maracatu.

Such an important event as the 18<sup>th</sup> CBECiMat – Congresso Brasileiro de Engenharia e Ciência dos Materiais could not have taken place without the presentation of the folklore from Olinda and Recife. Both the ceremony of the Opening of the Congress and the social meeting upon the Atlantic Ocean were accompanied by the full of temper performances of young people, presenting the frevo and maracatu with small multi-colour umbrellas and giant effigies of the outstanding inhabitants of the Pernambuco State, who in such a symbolic way accompanied the proceedings of the Congress. It was a great scientific event. I congratulate the Organisers the success and do count that the best presentations presented there after the suitable outworking can be published in our Journal AMME and on behalf of the Organisers I invite already today to the participation in the next Congress which will take place in two years in Brazil.

As usually I invite PT Readers to next reading of the next issue of Journal AMME, and PT Authors for the preparation of next papers which will be published in the next issues of the Journal. I wish a nice reading.



Gliwice, in February 2009

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