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It was said...



HANS-GERT PÖTTERING

the President of the European Parliament

"(...) We sometimes forget that water is not just another resource and certainly not one which is available in limitless quantities: without water there would be no life on our planet. All human activities are dependent on water in one way or another - and too many parts of the world, too many people on our planet, are feeling the effects of water scarcity. Water is a vulnerable and scarce natural resource. However much some countries and the European Union may boast about the abundance of their water resources, this shared feature of our planet's heritage is coming under increasing threat from accelerating climate change. When countries with abundant water refer to their 'white gold', these two words alone suffice to give an accurate idea of the value of this ever more scarce resource. By comparison with the situation in other parts of the world, the threat to the European Union's water reserves is clearly less serious than it is, for example, in the Middle East or Africa. Nevertheless, the European continent is in no way immune to the effects of water shortages. Water scarcity and droughts affect us all and for that reason our political thoughts must turn to the task of guaranteeing fair access to water supplies in the future as well. (...) As a result of the increasingly tangible impact of climate change, in the future up to 3.2 billion people around the world could be affected by water scarcity. For that reason, the work of protecting water resources, the aquatic ecosystems and drinking and usable water must have the highest priority. (...) It is our responsibility and duty, in the European Union and throughout the world, to encourage the sustainable use of water, with a view, on the one hand, to safeguarding economic and social development, and, on the other, to ensuring that the future of our planet is not jeopardised by excessive water usage, waste and pollution. (...) As citizens we must also change our habits and learn, by means of small, everyday gestures, to save water. (...) Peace, security and the prosperity of future generations will depend on our ability to reduce water wastage substantially and to bring water use down to a level which is sustainable in the long term."

From the opening speech at the conference on "Peace with Water" on 12th February 2009 in European Parliament in Brussels, Belgium.

Editorial

As the editorial team of Archives of Materials Science and Engineering we have assumed that in the next volumes of the journal various world regions, paying special attention to the scientific activity and important scientific events which take place there will be promoted. Today the attention of PT Readers is paid to the big country of the South America – Brazil and especially its north and northeast regions. Pernambuco State, one of the smallest states of Brazil, is located in the Northeast region of Brazil. There are about 185 kilometres of the 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. 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 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. Pernambuco was first settled by the Portuguese in the 16th 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 5th 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. Pernambuco State 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. Summerville Resort Hotel in Porto de Galinhas – PE, Brasil, on the Atlantic Ocean shore, was the venue of an important event as the 18th CBECiMat – Congresso Brasileiro de Engenharia e Ciência dos Materiais in the period of 24th-28th November 2008. Since 1974 Brazilian Congress of



Materials Engineering and Science CBECiMat has been organised biyearly. 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 18th 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. 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 multicolour 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.

The next issue of AMSE is handed to PT Readers. As usual I invite PT Readers to the reading of this issue and as usual it does not include the conference proceedings because none of papers presented at CBECiMat Congresses was published in our Journal. Politics of the journal orders not to publish Conference Proceedings. However, the high level of scientific papers presented in the Congress would give possibilities to qualify them to the publication in AMSE. We do not do it because of the respect to established rules. We present papers achieved in a regular way. I wish a nice reading. I invite also PT Authors for the preparation of next papers which will be published in the next issues of the Journal.

Prof. Leszek A. Dobrzański M. Dr hc
Editor-in-Chief of the AMSE
President of the WAMME
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Gliwice, in March 2009