

Editorial



During the last 17 years the World Academy of Materials and Manufacturing Engineering and their main International Scientific Conferences on Achievements in Mechanical and Materials Engineering AMME and Contemporary Achievements in Mechanics, Manufacturing and Materials Science CAM²S conferences took place in many important places in Poland. Those places became close to WAMME fellows and its sympathizers of whom a few thousands participated in those events, including ca. 2,5 thousands from ca. 50 countries from all world continents. A special role for the WAMME Academy plays Zakopane, a winter capital of Poland. The WAMME Academy was established here and the meetings of the General Assembly of the WAMME Academy and AMME and CAM²S have taken place here already for several times. Those conferences took place in Cracow, a city having a special meaning for world culture, including on the Wawel Hill, in the former seat of the Polish Kings and in the Collegium Novum of the Jagiellonian University, the oldest Polish academic university. The important meaning for the WAMME Academy has also Wisła – a pearl of the Silesian Beskid and Rycyzna with its castle of the King Stanisław Leszczyński. Surely Gliwice – with a seat of the WAMME Academy and the Silesian University of Technology which has taken it under its roof, giving the seat, is an important venue for the WAMME Academy, and also a venue of many conferences of the AMME and CAM²S series. One of venues of the AMME conferences was once Sopot with the oldest pier at the Baltic Sea and a historical Grand Hotel and historical Gdańsk with its City Hall in the Old Town. History likes to repeat that is why in 2009 the Worldwide Congress on Materials and Manufacturing Engineering and Technology COMMENT²009 organised on 14th-17th June under the patronage of the World Academy of Materials and Manufacturing Engineering will take place in the conference rooms of the very modern Mercure Hevelius Hotel in Gdańsk, Poland, at the beautiful Polish seaside. Moreover, the Opening Ceremony of the COMMENT²009 Congress will take place in the Great Hall of Artus Court in Gdańsk. Artus Court – a building situated in the very centre of Gdańsk was not only a place of the meetings of merchants but also a centre of social life and attraction for numerous strangers from abroad. The name comes from a popular Medieval legend about King Arthur, a symbol of knighthood and courage. In Poland Artus courts were founded and visited by the representatives of the middle-class stratum. All over the Republic of Poland a few courts were created but that in Gdańsk was absolutely the most famous one. During the Opening Ceremony of the COMMENT²009 Congress the wonderful music of the outstanding Polish romantic composer Frederic Chopin played by the famous Polish pianist of the young generation Wojciech Waleczek from Silesia will sound there.

Gdańsk is the city at the centre of the fourth-largest metropolitan area in Poland. The city's name is thought to originate from the Gdania river, the original name of the Motława branch upon which the city is situated. According to archaeologists, a stronghold was built at Gdańsk in the 980s by Mieszko I of Poland, after a series of wars against the local tribes. Modern day Poles have come to regard this as the founding of Gdańsk; in 1937 the city celebrated the millennial anniversary of the year 997 when Saint Adalbert of Prague baptised the inhabitants of the settlement on behalf of Bolesław the Brave of Poland. In 1186, a Cistercian monastery was set up in Oliwa nearby, now within the city limits. It is a three-nave basilica with a transept and multisided-closed presbytery with an ambulatory. Facade is flanked by two slender towers, 46-metre tall each with sharply-edged helmets. It is enlivened by a baroque portal from 1688. It is the longest cistercian church in the world, hiding pieces of sacral art in Renaissance, baroque, rococo and classic style of the high artistic level. In the metropolitan cathedral organ concerts take place and the delegates of the COMMENT²009 Congress will listen to one of them. The famous great Oliwa organ was designed and constructed between 1763 and 1788 by Johann Wilhelm Wulff. A detached console was placed in the middle of an organ choir and was the first of such a type in the world. The prospectus was decorated with sculptures in the rococo style and was furnished with moving elements (angels with bells and trumpets, stars and suns). Then it was the biggest organ in Europe and probably in the world. It was repeatedly rebuilt and expanded. Today the great Oliwa organ has 96 pipes, 5 manuals, a pedal and electro-pneumatic tracker action. It also has the electronic system recording up to 64 combinations (so called Setzer type) and it is connected with the choir organ. Prospectus pipes were invented by Johann Wilhelm Wulff and are one of the biggest ones in Poland. The choir organ, placed in the south wing of a lateral nave was built in 1680 as 14-pipe instrument. In 2003 the contemporary 17-pipe organ from Emanuel Kemper's company was imported from Germany. It has a mechanical and electric tracker action. Afterwards, an organ builder Jerzy Kukla installed it in an antique organ case, thus, replacing a previous instrument. The choir organ is connected with the great organs. St. Mary's Church or, properly, Basilica of the Assumption of the Blessed Virgin Mary in Gdańsk is a co-cathedral in the Roman Catholic Archdiocese of Gdańsk, along with the main cathedral for the Archdiocese, the Basilica-Cathedral of Gdańsk-Oliwa. It is the largest brick church in the world, and one of the largest Brick Gothic buildings in Europe. It is 105.5 m long, and the nave is 66 m wide. Inside the church is room for 25,000 people. It is an aisled hall church with a transept. The foundation stone for the church placed the feast of the Annunciation on 25th March 1343. In 1379 a masonry master Heinrich Ungeradin with his team started construction work on the present church. By 1447 the eastern part of the church was finished, and the tower was raised by two floors in 1452-1466. The history caused that the city of Gdańsk was alternately under the succession of Poland and Germany. Combining the number of years, the city was under rule of Poland for 641 years, under the rule of Teutonic Order for 158 years, 125 years as part of Prussia and later Germany, 29 years of its history are marked by the status of a free city, and 6 years under the occupation of Nazi Germany until it was given back to Poland in 1945. The Old City is full of historical buildings. Neptune's Fountain in the centre of the Long Market was first erected in 1549. Green Gate was built between 1568-1571 to serve as the formal residence of Polish monarchs. Royal Chapel of the Polish King – John III Sobieski was built in baroque style between 1678-1681. The city has many fine buildings from the time of the Hanseatic League. Most tourist attractions are located along or near Long Street and Long Market, a pedestrian thoroughfare surrounded by buildings reconstructed in historical (primarily 17th century) style and flanked at both ends by elaborate city gates. This part of the city is sometimes referred to as the Royal Road as the former path of processions for visiting kings. The most famous monuments in Gdańsk is the medieval port crane (Krantor), called Żuraw over Motława river. Gdańsk is Poland's principal seaport as well as the largest city in the Pomerania region of Northern Poland and also historically the largest city of the Kashubian region. The city lies on the southern edge of Gdańsk Bay (of the Baltic Sea), in a conurbation with the spa town of Sopot, the city of Gdynia and suburban communities, which together form a metropolitan area called the Tricity. Gdańsk is situated at the mouth of the Motława River, connected to the Leniwa, a branch in the delta of the nearby Vistula River, whose waterway system waters 60% of the area of Poland and connects Gdańsk to the national capital in Warsaw. This gives the city a unique advantage as the centre of Poland's sea trade. Together with the nearby port of Gdynia, Gdańsk is also an important industrial centre. Historically an important seaport and shipbuilding centre, Gdańsk was a member of the Hanseatic League. In 1970, Gdańsk was the scene of anti-regime demonstrations which led to the downfall of Poland's communist leader Władysław Gomułka. Ten years later the Gdańsk Shipyard was the

birthplace of the Solidarity trade union movement, whose opposition to the Communist regime led to the end of Communist Party rule in 1989, and sparked a series of protests that successfully overthrew the Communist regimes of the former Soviet bloc. Solidarity's leader, Lech Wałęsa became President of Poland in 1990. Gdańsk native Donald Tusk became Prime Minister of Poland in 2007.

The COMMENT²009 Congress' main aim is to comment and discuss the new trends of the development of materials and manufacturing engineering and technologies during the next decades of the 21st century. It is a federation of the 7 independent following Conferences which are organised for many years:

- 17th International Scientific Conference on Achievements of Mechanical and Materials Engineering AMME²009. The AMME²009 Conference serves to accomplish knowledge and raise professional qualifications for its delegates including the level of professional knowledge and abilities of making current engineering and research works mainly in the field of the newest technological achievements, methodology of scientific researches and engineering calculations, the newest trends in the field of education and distance learning. The scope includes the following main issues: engineering materials, materials properties and methodology of research, analysis and modelling of materials structure and properties, materials manufacturing and processing, cleaner production, industrial management and organisation, education, distance learning and research trends. The 17th conference in its highly successful series acquires a new level both in terms of the scope and geographical range. Each time the Conference on Achievements in Mechanical and Materials Engineering is an occasion to meet many specialists from the mentioned thematic fields from very many countries of the World. Surely, it will be the same this year. The contributors will come so far from the Americas, Asia, Australia, Africa and Europe.

- 15th Jubilee International Scientific Conference on Contemporary Achievements in Mechanics, Manufacturing and Materials Science CAM²S²009.
- Scientific Conference on Surface Engineering SE²009. In the framework of that conference the 1st Workshop on "Foresight of surface properties formation leading technologies of engineering materials and biomaterials" concerning the research project FORSURF financed in the framework of the Innovative Economy of the National Cohesion Strategy and the European Regional Development Fund of the European Union will take place.
- Scientific Conference on Computational Materials Science CMS²009.
- Scientific Conference on Biomaterials and Bioengineering BIO²009.
- Scientific Conference on Nanotechnology and Nanomaterials NANO²009.
- Scientific Conference on Polymers' Technologies and Recycling PTR²009.

The accompanying events of the Congress are:

- Handing honorary awards of the Prof. Fryderyk Staub Golden Owl for 2009 for achievements in promoting the Polish science and higher education on the international arena and for achievements in collaboration with the Polish scientific community of materials engineering.

This year those awards are achieved by the outstanding scientists: Prof. Stanisław Rusz from VSB Technical University of Ostrava, Ostrava, Czech Republic, Prof. Emin Bayraktar from Supmeca/LISMMA-Paris School of Mechanical and Manufacturing Engineering, St Ouen Cedex, France and Prof. Gilmar Batalha from University of Sao Paulo, Sao Paulo Brazil.

- Handing the honorary award of the Prof. Jan Adamczyk of the World Academy of Materials and Manufacturing Engineering for a young scientist for a distinguished PhD or DSc thesis for 2009. This year it is achieved by Dr Marek Kremzer from the Silesian University of Technology in Gliwice, Poland.
- The General Assembly of the World Academy of Materials and Manufacturing Engineering
- The Annual Meeting of the Metallic Materials Section of the Materials Science Committee of the Polish Academy of Sciences

- Scientific-Technical Conference QMS²009 on Certificated and uncertificated quality management systems in education
- The 1st Workshop FORSURF in the framework of the project on "Foresight of surface properties formation leading technologies of engineering materials and biomaterials" financed in the framework of the Innovative Economy of the National Cohesion Strategy and the European Regional Development Fund of the European Union

- The Congress of Students' Scientific Circles COKiK, together with Photovoltaics, Foundry and Quality Days.

I wish all the delegates the nice impressions from the stay in Poland and in hospitable Gdańsk, fruitful scientific debates and new constant relationships of scientific cooperation. Of course, as usual I invite the conference delegates for the preparation of papers, mainly full ones, which fulfil high editorial requirements, in order to share them with P.T. Readers of the Journal AMME hoping that they will fulfill their expectations. The Journal is constantly at the disposal both of P.T. Authors and P.T. Readers.

Gliwice, in May 2009

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