



**AGH**

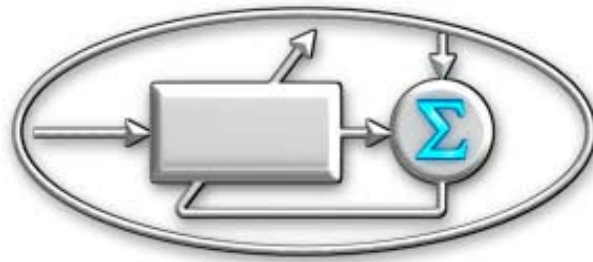
AGH - University of Science and Technology  
Krakow



Faculty of Mechanical Engineering and Robotics



Department of Process Control



## Conference Program

### 9th Conference on **Active Noise and Vibration Control Methods** **MARDiH'2009**

Krakow – Zakopane, Poland  
May 24 - 27, 2009

# Schedule of 9th Conference on Active Noise and Vibration Control Methods MARDiH'2009

Sunday 24.05

Monday 25.05

Tuesday 26.05

Wednesday 27.05

	Sunday 24.05	Monday 25.05	Tuesday 26.05	Wednesday 27.05
07 <sup>00</sup>		Breakfast	Breakfast	Breakfast
08 <sup>00</sup>				
09 <sup>00</sup>		Session 02	NI PAC as a real time platform PART I	Session 05
10 <sup>00</sup>			10:30-10:50 Coffee break	
11 <sup>00</sup>		11:00-11:20 Coffee break	NI PAC as a real time platform PART II	Session 06
12 <sup>00</sup>		Session 03		
13 <sup>00</sup>	Lunch	Lunch	Lunch	
14 <sup>00</sup>				
15 <sup>00</sup>		LabVIEW Sound and Vibration toolkit PART I	Session 04	Excursion - Kasprowy Wierch
16 <sup>00</sup>	Opening of the conference	16:30-16:50 Coffee break		
17 <sup>00</sup>	Session 01	LabVIEW Sound and Vibration toolkit PART II	Poster session	
18 <sup>00</sup>				
19 <sup>00</sup>	Dinner - Banquet	Dinner - Bonfire	Dinner	
20 <sup>00</sup>				

9th Conference on  
Active Noise and Vibration Control Methods MARDiH'2009

Sunday afternoon, May 24, 2009

14<sup>00</sup> 13:00 - 16:00

Lunch

14<sup>30</sup>

15<sup>00</sup>

15<sup>30</sup>

16<sup>00</sup>

16<sup>30</sup>

16:30 - 17:30

**Opening of the conference:**

1. A. **TURNAU** *Laboratory Tools to Faciliate Automatic Control Education*
2. K. **PIETRUSEWICZ** *Control Engineering speech*
3. P. **HOERNER DE ROITHBERG** *Introduction to the National Instruments workshops*

17<sup>00</sup>

17<sup>30</sup>

17:45 - 19:15

Chairmans: **Z. Engel, Z. Gosiewski**

**Session 01**

18<sup>00</sup>

1. A. **TYLIKOWSKI** *Stabilization of circular plate parameric vibrations in a weak formulation*
2. J. T. **SAWICKI**, J. D. **LEKKI** *Smart rotating machinery for structural health monitoring*
3. J. **FIGWER** *Acoustic distributed field shaping*
4. N. **KANEV**, A. **GLADILIN** *An active resonant absorber for flexural waves in a rod*
5. B. **SAPIŃSKI** *Numerical calculations of magntic field in a generator for a linear MR damper*

18<sup>30</sup>

19<sup>00</sup>

19<sup>30</sup>

19:30

Dinner - Banquet

20<sup>00</sup>

20<sup>30</sup>

21<sup>00</sup>

9th Conference on  
Active Noise and Vibration Control Methods MARDiH'2009

Monday morning, May 25, 2009

07<sup>30</sup> 07:00 - 09:00

**Breakfast**

08<sup>00</sup>

08<sup>30</sup>

09<sup>00</sup>

09:15 - 10:45

Chairmans: **S. Pietrzko, N. Kanev**

**Session 02**

09<sup>30</sup>

1. Z. **ENGEL** *Professor Igor Ballo – An outstanding scientist of Slovakia*
2. M. I. **MICHALCZYK** *Comparison of feedforward and IMC systems for active noise control with moving error microphone: simulation results*
3. M. **PAWEŁCZYK** *Fixed-parameter Wiener filter versus adaptive filter with the FXLMS algorithm for active noise control*
4. T. **WSZOŁEK** *Uncertainty analysis of airborne sound insulation index measurements*
5. W. **WSZOŁEK**, M. **KŁACZYŃSKI** *Methods of deformed voice signal evaluation after larynx surgery*

10<sup>00</sup>

10<sup>30</sup>

11<sup>00</sup>

11:00 - 11:20

**Coffee break**

11<sup>30</sup>

11:30 - 13:00

Chairmans: **A. Tylikowski, T. Sawicki**

**Session 03**

1. P. **FERFECKI**, J. **ONDROUCH**, Z. **PORUBA** *Numerical simulation feedback control fluid-induced instabilities in rotor system supported by hydrodynamic bearings*
2. L. **LENIOWSKA**, P. **KOS** *Adaptive feedback control of circular plate with surface mounted actuators*
3. J. **SNAMINA**, A. **PODSIADŁO**, P. **ORKISZ** *Study on skyhook vibration control with energy regenerative system*
4. A. **MYSTKOWSKI** *Robust control and modal analysis of flexible rotor magnetic bearings system*
5. Z. **OGONOWSKI** *Modal control of magnetic bearing system*
6. J. **TŮMA**, R. **KLEČKA**, J. **ŠKUTA**, J. **ŠIMEK** *A 3D model of the rigid rotor supported by journal bearings*

12<sup>00</sup>

12<sup>30</sup>

13<sup>00</sup>

13:00 - 14:30

**Lunch**

13<sup>30</sup>

14<sup>00</sup>

14<sup>30</sup>

# 9th Conference on Active Noise and Vibration Control Methods MARDiH'2009

Monday afternoon, May 25, 2009

14<sup>30</sup>

14:45 – 16:15 *Chairmans: M. Pietrzakowski, Y. Shalapko* **Session 04**

1. Z. **GOSIEWSKI**, A. **KOSZEWNIK** *The influence of the piezoelements placement on the active vibration damping of smart truss*
2. P. **PRZYBYŁOWICZ**, T. **SZMIDT** *Nonlinear response of a harmonically driven oscillator in magnetic field*
3. Z. **GOSIEWSKI** *Control of coupled rotating systems*
4. J. **KONIECZNY** *Experimental investigation of active vehicle suspension system*
5. M. A. **KSIAŻEK** *Optimal hand -arm system of vibration isolation including human sensitivity to vibration*
6. L. **STAREK**, D. **STAREK**, P. **ŠOLEK**, A. **STAREKOVÁ** *Suppression of vibration with optimal actuators and sensors placement*

LabVIEW  
toolkits for  
Sound and  
Vibration  
analysis and  
diagnostics  
**PART I**

15<sup>00</sup>

15<sup>30</sup>

16<sup>00</sup>

16<sup>30</sup>

16:30 - 16:50

**Coffee break**

17<sup>00</sup>

17:00 – 18:30 *Chairmans: J. Kwaśniewski, A. Podsiadło* **Poster session**

1. Z. **BASISTA**, M. A. **KSIAŻEK**, J. **TARNOWSKI** *Investigations of influence of vibration on human-operator control functions*
2. S. **FLAGA** *The project of the test stand for measurements magnetic shape memory materials*
3. J. **KONIECZNY**, W. **RĄCZKA**, M. **SIBIELAK** *Experimental investigation of the semi-active vibration isolation system*
4. M. A. **KSIAŻEK**, D. **ZIEMIAŃSKI**, Z. **BASISTA**, J. **TARNOWSKI** *Modeling of dynamical responses of a human-operator in a man-hand tool system*
5. J. **KWAŚNIEWSKI**, I. **DOMINIK**, J. **KONIECZNY**, Y. **KRAVTSOV**, A. **SAKEBA** *Experimental system for stress measurement in rocks*

LabVIEW  
toolkits for  
Sound and  
Vibration  
analysis and  
diagnostics  
**PART II**

17<sup>30</sup>

18<sup>00</sup>

18<sup>30</sup>

19<sup>00</sup>

19<sup>30</sup>

19:30

**Dinner - Bonfire**

20<sup>00</sup>

20<sup>30</sup>

21<sup>00</sup>

# 9th Conference on Active Noise and Vibration Control Methods MARDiH'2009

Tuesday morning, May 26, 2009

07 <sup>30</sup>	07:00 - 09:00		
	Breakfast		
08 <sup>00</sup>			
08 <sup>30</sup>			
09 <sup>00</sup>	09:00 - 10:30	Chairmans: <b>J. Tuma, M. Pawelczyk</b>	<b>Session 05</b>
09 <sup>30</sup>	<ol style="list-style-type: none"> <li>1. <b>A. BRAŃSKI, S. SZELA</b> <i>Quasi-optimal PZT distribution in active vibration reduction of the triangular plate with P-F-F boundary conditions</i></li> <li>2. <b>S. PIETRZKO, Q. MAO</b> <i>Design of volume displacement sensor</i></li> <li>3. <b>R. KORZENIOWSKI, J. PLUTA, B. SAPIŃSKI</b> <i>Testing of a vibration isolation system with an air spring and MR damper</i></li> <li>4. <b>I. MACIEJEWSKI, T. KICZKOWIAK, T. KRZYŻYŃSKI</b> <i>Research and development of seat suspensions for working machines</i></li> <li>5. <b>M. ROSOŁ, P. GORCZYCA</b> <i>Semi-active suspension system with MR rotary brake</i></li> <li>6. <b>S. ŻÓLKIEWSKI</b> <i>Dynamical analysis of the free-free damped transverse vibratory beam in transportation</i></li> </ol>		<b>NI PAC as a real time platform for measuring, analysis and control in automation PART I</b>
10 <sup>00</sup>			
10 <sup>30</sup>	10:30 - 10:50		
	Coffee break		
11 <sup>00</sup>	11:00 - 12:30	Chairmans: <b>M. Książek, J. Nizioł</b>	<b>Session 06</b>
11 <sup>30</sup>	<ol style="list-style-type: none"> <li>1. <b>R. KLEČKA, J. TUMA, Q. WU</b> <i>Measurement characteristics of piezo actuator and proximity sensor</i></li> <li>2. <b>Y. SHALPKO, A. GANZIUK, W. KURSKOY</b> <i>Wavelet-analysis for control of contact vibration with friction and fretting-process</i></li> <li>3. <b>M. MAŚLANKA</b> <i>Detailed damping analysis of a cable with a magnetorheological damper in passive mode</i></li> <li>4. <b>M. PIETRZAKOWSKI</b> <i>Modelling of matrix degradation in piezocomposite actuators using graded material approximation</i></li> <li>5. <b>P. CUPIAŁ, Ł. ŁACNY</b> <i>Comparison of selected control algorithms for active damping of the transient vibrations of a smart beam</i></li> <li>6. <b>W. ŁATAS</b> <i>Damping of the waves motion in a span by the active distributed force</i></li> </ol>		<b>NI PAC as a real time platform for measuring, analysis and control in automation PART II</b>
12 <sup>00</sup>			
12 <sup>30</sup>	12:30 - 13:00		
	Closing of the conference		
13 <sup>00</sup>	13:00 - 14:30		
	Lunch		
13 <sup>30</sup>			
14 <sup>00</sup>			
14 <sup>30</sup>			

9th Conference on  
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Tuesday afternoon, May 26, 2009

14<sup>30</sup>

14:30 - 19:30

Excursion - Kasprowy Wierch

15<sup>00</sup>

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16<sup>00</sup>

16<sup>30</sup>

17<sup>00</sup>

17<sup>30</sup>

18<sup>00</sup>

18<sup>30</sup>

19<sup>00</sup>

19<sup>30</sup>

19:30 - 21:00

Dinner

20<sup>00</sup>

20<sup>30</sup>

21<sup>00</sup>

9th Conference on  
Active Noise and Vibration Control Methods MARDiH'2009

Wednesday morning, May 27, 2009

07<sup>30</sup> 07:00 - 09:00

**Breakfast**

08<sup>00</sup>

08<sup>30</sup>

09<sup>00</sup>

09<sup>30</sup>

10<sup>00</sup>

10<sup>30</sup>

11<sup>00</sup>

11<sup>30</sup>

12<sup>00</sup>

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14<sup>00</sup>

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