

TUESDAY, 17 March

14:00 *Registration and Accommodation*

WEDNESDAY, 18 March

10:00 *Official Opening*

10:10 - 12:15 **Plenary Session 1**

Chairman: Tatyana Koutzarova

10:10	<u>PL-1</u> : Vera Marinova	2D materials for biomedical applications
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10:55 - 11:15 *Coffee Break*

11:15	<u>PR-1</u> : Albena Daskalova	Smart, bioactive, and antiviral/antibacterial surfaces beyond the state of the art
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11:50	<u>OP-1</u> : Georgi Prandzhev	Application of artificial intelligence for early diagnosis of cervical pre-cancer lesions
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12:15 **Group Photo**

12:30 *Free time*

13:00 *Lunch time*

14:00 - 16:10 **Plenary Session 2**

Chairman: Tsanka Dikova

14:00	<u>PL-2</u> : Maria Nikolova	Multicomponent sputtered films for titanium implant functionalization
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14:45	<u>PR-2</u> : Dimitre Dimitrov	Antibacterial performance of ALD ZnO and Al-doped ZnO
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15:20	<u>OP-2</u> : Teodora Semova	Robotic interval debulking surgery for advanced epithelial ovarian cancer
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15:45	<u>OP-3:</u> Evdokiya Hikova	Comparative analysis of poly-L-lysine deposition techniques for improving cell adhesion on gold surfaces
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16:10 -19:00 Poster Session-1

- Bioengineering and fundamental applications
- New materials and techniques for biomedical applications

19:00 *Free time*

20:00 *Welcome Party*

11:00 - 13:15 *Plenary Session 3*

Chairman: Nikolay Nedyalkov

11:45 *Coffee Break*

12:50	<u>OP-4</u> : Lyubomira Veleva	Environment-dependent morphology and interfacial stability of Pt nanoparticles for biomedical surface engineering
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13:15 *Lunch time*

14:00 - 16:10 **Plenary Session 4**

Chairman: Dimitre Dimitrov

14:45	<u>PR-3</u> : Slavcho Tomov	Simulation in medicine – challenges and perspectives
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15:45	<u>OP-6</u> : Maria Todorova	Influence of silver nanoparticles on Liposomal membrane properties relevant in photothermal therapy
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16:10 - 19:00	<u>Poster Session-2</u>	- Application of modern engineering technologies in the medicine - Surface modification of novel biomaterials - Advanced thin films and coatings for biomedical applications
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FRIDAY, 20 March

10:00	<i>Social program</i>	
13:00	<i>Lunch time</i>	
14:00 - 18:20	<i>Plenary Session 5</i>	
	<u>Chairman:</u> Vera Marinova	
14:00	<u>PL-6:</u> Peter K. Petrov	Nanostructured antimicrobial surfaces based on titanium nitride nanoneedle arrays
14:45 - 15:05	<i>Coffee Break</i>	
15:05	<u>PL-7:</u> Tsanka Dikova	Modern dentistry - symbiosis between dentist and engineer
15:50	<u>Companies presentations</u>	
	<u>Todor Todorov</u>	AQUACHIM - 30 Years history and success stories
16:15 - 16:35	<i>Coffee Break</i>	
16:35-18:20	<i>Plenary Session 6</i>	
	<u>Chairman:</u> Stefan Valkov	
16:35	<u>OP-7:</u> Ognyan Petkov	Sugar-mediated modulation of the dielectric permittivity of phosphatidylcholine membranes
17:00	<u>PR-4:</u> Dobromir Dimitrov	Development of an automated multifunctional coaxial needle for breast biopsy: a conceptual approach
17:35	<u>PL-8:</u> Ivan Petrov	Control of composition, microstructure, and properties of sputter-deposited transition metal diborides
18:20	<i>Free time</i>	
20:00	<i>Official Dinner</i>	

SATURDAY, 21 March

10:00 -13:50 ***Plenary Session 7***

Chairman: Peter K. Petrov

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| 10:00 | <u>PL-9:</u> Bogdan Ranguelov | Flow-induced vesicle translocation through a narrow slit-transit time scaling relations |
| 10:45 - 11:05 <i>Coffee Break</i> | | |
| 11:05 | <u>PR-5:</u> Aleksandar Krmpot | Nonlinear imaging, laser nano surgery and electrophysiology on single fungal cell |
| 11:40 | <u>PR-6:</u> Stefan Valkov | Electron beam surface modification of metals and alloys for biomedical applications |
| 12:15 | <u>OP-8:</u> Velizar Georgiev | Electroanalysis of nickel-containing dental archwires in in vitro and in vivo environments |
| 12:40 | <u>Roundtable</u> | "Surface Engineering for Biomedical Applications" |
| 13:50 | <i>Closing Ceremony</i> | |

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