



# 2020

## INTERNATIONAL CONFERENCE ON DEFENCE TECHNOLOGY

20-24 April 2020

Nanjing China

The 2020 ICDT follows on from the very successful 2018 ICDT. Over 600 delegates, representing over 20 countries, attended the 2018 ICDT. Countries represented included France, Italy, Poland, Russia, Singapore, South Africa, Sweden, UK, USA and China. The 2020 ICDT brings together many different and extremely interesting and informative presentations covering basic research in the fields of defence science and technology.

### THEME CATEGORIES

#### Session 1: Energetic Materials

Chairmen: Shen Ruiqi (China), Michael Gozin (Israel)

#### Session 2: Explosion & Impact, including Armour & Protection

Chairmen: Chen Pengwan, Chen Xiaowei (China), Daniel Rittel (Israel)

#### Session 3: Novel Manufacturing Processes and Management (includes Additive Manufacturing, 3D Printing, Metals with Nanostructures, Casting Technology)

Chairmen: Tian Xiaoyong (China)

#### Session 4: Autonomous Technology

Chairmen: Shao Zhufeng, Qi Feng (China), Marco Ceccarelli (Italy)

#### Session 5: Application of Composite Materials

Chairmen: Ye Hong (China), Alexey Smolin (Russia)

#### Session 6: Directed Energy and Pulsed Power

Chairmen: Li Baoming (China), Irwin L. Singer (USA)

#### Session 7: Modelling & Simulation in Defence Science & Technology

Chairmen: Chen Jun (China)

#### Session 8: Photoelectronic Information Technology

Chairmen: Hao Qun (China)

#### Session 9: Other Defence Technologies

Chairmen: Clive Woodley (UK)

### INVITED ORAL PRESENTATIONS

#### Timon Rabczuk

Professor, Academician of the European Academy of Sciences, Bauhaus Universität-Weimar, Germany

Title: Coming Soon...

#### Wang Huaming

Professor, Academician of the China Academy of Engineering, Beihang University, China

Title: Additive Manufacturing (3D Printing) for High-Performance Large Critical Metallic Components and its Impacts on Advanced Materials and Manufacturing Industries

#### Gerald Nurick

Professor, Fellows of the University of Cape Town and South African Academy of Engineers, Honorary Fellow of South African Institution of Mechanical Engineering, University of Cape Town, South Africa

Title: The Art and Science of Using Plastic Explosive Methods in Experiments to Determine the Dynamic Plastic Response of Structural Components

#### Daniel Rittel

Honorary Professor of Universidad Carlos III de Madrid, Fellow of the Society for Experimental Mechanics and the American Society of Mechanical Engineers, Associate Editor of Mechanics of Materials, International Journal of Engineering Science and the International Journal of Impact Engineering, Israel Institute of Technology, Israel

Title: Coming Soon...

#### Tan Ying

Professor, Peking University, China

Title: Swarm Intelligence and Its Application to Multi-Objects Search

#### Hao Qun

Professor, Associate Editor of Defence Technology, Beijing Institute of Science and Technology, China

Title: Novel Imaging Technique with Simultaneous Zoom and Line of Sight Stabilization for Mobile Platform

#### Li Baoming

Professor, Principal Scientist, China Academy of Ordnance Science, Nanjing University of Science and Technology, China

Title: Coming Soon...

### CONTACT US

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ICDT Website: <http://www.icdt-conf.com>

### Rusinek Alexis

Professor, Lorraine University, France

Title: Advanced Constitutive Relations and Original Experiments at High Strain Rates

### Simon Bland

Senior Lecturer, Imperial College London, UK

Title: New Insights into Pulsed Power Driven Underwater Wire Array Explosions and Their Use to Propel Flyer Plates

### Chen Pengwan

Professor, Beijing Institute of Science and Technology, China

Title: Impact Safety of Explosives: Experiments and Modeling

### Marco Ceccarelli

Professor, University of Roma Tor Vergata, Beijing Advanced Innovation Center for Intelligent Robots and Systems, Beijing Institute of Technology, Italy

Title: Past and Future Innovations with Mechanism Design

### Douglas Coldwell

Professor, Fellows of the American College of Radiology (8% of all radiologists), the Society of Interventional Radiology (6% of all IRs) and the American Heart Association, University of Louisville, USA

Title: Coming Soon...

## TUTORIALS

### Clive Woodley

Principal Scientist, Imperial College London, UK

Description: The course is intended to be attended by scientists and engineers relatively new to the area of the interior ballistics of guns.

### Adam Wiśniewski

Professor, Military Institute of Armament Technology, Poland

Description: New materials for passive armours:  
1) Behaviour after impact of different types of projectiles;

2) Nanostructural Steel; 3) Shear Thickening Fluid; 4) Magnetorheological Fluid.

### Nicolas Eches

Principal Scientist, Nexter Munitions Company, France

Description: This tutorial is to describe the interaction between the different components of the system.

### Luigi T. DeLuca

Professor, Politecnico di Milano, Italy

Description: This tutorial describes the main features, in terms of performance parameters, of solid rocket propellants loaded with nanometals and intends to emphasize the unique properties made possible by the addition of nano-sized energetic ingredients.

## AWARDS

Best Contribution Award	one	¥ 60,000 RMB
Best Poster Presentation Award	one	¥ 12,000 RMB
Young Author Awards	six	¥ 10,000 RMB per person

## REGISTRATION FEE

Categories	Before/On 29 Feb. 2020	After 29 Feb. 2020
Regular Participant	3800 RMB	4800 RMB
Student	3000 RMB	3800 RMB
Accompany Person	3000 RMB	3800 RMB

## EXHIBITION

2020 ICDT welcomes research institutes, companies, laboratories that are related to enterprises and institutions to display military trade equipment model test equipment and technical software equipment and publications, etc. Please contact the 2020 ICDT Organizer Committee for the exhibition and sponsorship.

## SCIENTIFIC PROGRAMS

- Apr. 20th 09:00-22:00 Registration, Tutorials  
18:00-20:00 Welcome Banquet
- Apr. 21st 09:00-17:05 Opening Ceremony, Key Notes, Invited Oral Presentations, Opening Ceremony for Poster and Exhibition  
18:30-20:00 Banquet Dinner
- Apr. 22nd 08:00-17:10 9 Parallel Session Presentations
- Apr. 23rd 09:00-15:30 Invited Oral Presentations  
15:40-16:30 Award Ceremony, Closing Ceremony
- Apr. 24th 08:30-18:00 Visits (not included in registration fee)

## TRAVEL



Nanjing Ming City Wall



Experience Chinese Fan Painting



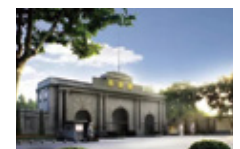
Confucius Temple



Qinhuai River Cruise



Sun Yat-Sen's Mausoleum



Presidential Palace

The details can be found on 2020 ICDT Website.