Frontiers in Medicine 2022

Verify Code: S30286

No.	Lecture	Lecturer	University
1	The future of psychotherapies. Perspectives from low- and middle-income countries	Atif Rahman	University of Liverpool
2	Drug discovery for ocular angiogenic diseases	Xiaomeng Wang	Duke-NUS Medical School
3	State-of-the-Art Animal Models of CardioVascular Disease	Jiongwei Wang	National University of Singapore
4	Studying biology using genetic perturbations	Baoxu Pang	Leiden University Medical Center
5	Comprehensive Management for Diabetes and Experience in Preventive Medicine in Japan	Yoko Iizuka	The University of Tokyo Hospital
6	Updates of SARS-CoV-2: Antiviral strategies	Mok Chee Keng	A*STAR Infectious Diseases Labs
7	Case analysis: the important role of clinical communication skills of medical practitioners in disease diagnosis and treatment	Yong Zhang	Somerville Village Clinic

Business Law: International and Comparative Perspectives

Verify Code: S30379

No.	Lecture	Lecturer	University
1	Introduction		
2	International Law and Global Business: International Perspectives		
3	Comparative Law and Global Business: Comparative Perspectives		
4	Law of Global Business Organisations (Corporate Nationality and Comparative Corporate Law)		
5	Law of Global Business Transactions (Private International		

	Law and International Investment Law)	Mejía-Lemos	Xi'an Jiaotong University
6	Settlement of Global Business Disputes: Comparative Perspectives (International Litigation –Choice of Forum- and Comparative Law of International Commercial Arbitration)		
7	Settlement of Global Business Disputes: International Perspectives (Investor-State Arbitration)		
8	Summary and Conclusions		

Understanding the Multi-scale Thermal Fluid Flow Dynamics for Applications in Energy and Power Engineering
Verify Code: S30465

No.	Lecture	Lecturer	University
1	Reviewing, writing and revising useful technical papers for the international turbo-machinery community	Stephen Spence	Trinity College Dublin
2	Lattice Boltzmann Modeling and simulation of multiphase flows	Haihu Liu	Xi'an Jiaotong University
3	Bio-physical-chemical technologies in circular water systems	Huub H. M. Rijnaarts	Wageningen University and Research
4	Space radiation environment and radiation effect	Chaohui He	Xi'an Jiaotong University
5	Recent advances in computational fluid dynamics modeling of multiphase flow, sustainable combustion, and pollutant formation in industrial applications	Milan Vujanovi	University of Zagreb
6	Ground source heat pumps: design and operating conditions	Angelo Zarrella	Padua University
7	Analysis of singular phenomena in complex unsteady flow with dynamic system approach	Jiazhong Zhang	Xi'an Jiaotong University
8	Typical CFD applications in nuclear reactor thermal hydraulics research	Guanghui Su	Xi'an Jiaotong University
9	Basic principles of vacuum	Oleg B. Malyshev	Vacuum Science

			and Technology in Accelerator Science and Technology Centre
10	Sources of gas in vacuum system	Oleg B. Malyshev	Vacuum Science and Technology in Accelerator Science and Technology Centre
11	The production of vacuum from atmosphere to high vacuum	Oleg B. Malyshev	Vacuum Science and Technology in Accelerator Science and Technology Centre
12	The measurements of vacuum	Oleg B. Malyshev	Vacuum Science and Technology in Accelerator Science and Technology Centre
13	Instruments and methods for nuclear planetology	Valery N. Shvetsov	Frank Laboratory of Neutron Physics Joint Institute for Nuclear Research
14	Reflectors for very cold neutrons based on nanopowder	E.V. Lychagin	Frank Laboratory of Neutron Physics Joint Institute for Nuclear Research

Frontiers in Materials Research 2022
Verify Code: S30594

No.	Lecture	Lecturer	University
1	Low dimension electronic materials synthesis and characterization	Yi Pan	Xian Jiaotong University
2	Stress/microstructure control of 3D-printed non-weldable superalloys	Kai Chen	Xian Jiaotong University
3	Beauty of materials' structural defects	Haijun Wu	Xian Jiaotong University
4	Antimony-Based Zintl Thermoelectrics for Energy	Umut Aydemir	Koç University, Turkey

	Harvesting		
5	Thermal Spray Techniques and Their Applications	Xiaotao Luo	Xian Jiaotong University
6	Dielectric materials for electronic applications	Jing Guo	Xian Jiaotong University
7	An introduction to advanced ceramics and composites	Jiping Wang	Xian Jiaotong University
8	Advanced functional oxides for optoelectronic applications	Huajing Fang	Xian Jiaotong University
9	Two-dimensional materials for supercapacitors	Farshad Boorbor Ajdari	University of Kashan, Kashan, Iran
10	Nano-materials based sensors and its applications	Shafa Mohammad	Xian Jiaotong University

Development Frontier and technology of low carbon chemical industry
Verify Code : S30699

No.	Lecture	Lecturer	University
1	Heat Exchangers and Networks of Heat Exchangers in Sustainable Energy Systems	Bengt Sunden	Lund University, Sweden
2	Energy system integration and the roadmap of Denmark to carbon neutrality	Haoshui Yu	Aalborg University, Denmark
3	Methane Assisted Catalytic Valorization of Low Cost Carbon Resources	Hua Song	University of Calgary
4	Membrane Distilllation: the low-carbon sustainable way to produce freshwater	Jianhua Zhang	Victoria University, Australia
5	Single-atom catalysis for energy and environmental applications.	Jiong Lv	National University of Singapore, Singapore
6	Cogeneration Targeting with Process Integration	Dominic Chuan Yee Foo	University of Nottingham Malaysia, Malaysia
7	Analyzing Impedance Spectra with the Probabilistic Distribution of Relaxation Times	Francesco Ciucci	Hong Kong University of science and technology,

			HongKong,China
8	Degradable polymers：Synthesis, Structure Manipulation and Applications	Dezhong Zhou	Xian Jiaotong University
9	Porous Organic Polymers and Carbon Neutralization	Shangbin Jin	Xian Jiaotong University
10	Selective Electrocatalytic CO2 Conversion	Ming Ma	Xian Jiaotong University
11	Microbial electrochemical CO2 fixation	Kun Guo	Xian Jiaotong University

Basic Course of Linear Algebra

Verify Code : S30743

No.	Lecture	Lecturer	University
1	Matrices. Main Definitions And Arithmetical Operations	Margarita I.Besova	Moscow Power Engineering Institute
2	Matrix Determinant. The Inverse Matrix.		
3	Rank Of A Matrix. The Method Of Bordering Minors.		
4	Gaussian Method For The Matrix Rank Evaluation And Calculation Of An Inverse Matrix		
5	Cramer's Rule For Systems Of Linear Equations. Linear Dependence and Linear Dependence And Linear Independence Of Vectors. Bases		
6	Gaussian Elimination For Systems Of Linear Equations		
7	Consistent And Inconsistent Systems Of Linear Equations		
8	Homogeneous And Inhomogeneous Systems Of Linear Equations		

Dynamics and control of the active human exoskeleton

Verify Code : S30846

No.	Lecture	Lecturer	University
1	The current state of development of active exoskeletons	Delshan Deeb Merkuriev Igor	Moscow Power Engineering Institute
2	Statement of tasks and directions of research		
3	Construction and 3D modeling of an active human exoskeleton		
4	Development of a mathematical model		
5	Balance control of the active human exoskeleton		
6	Methods for optimal motion control		
7	Algorithms for optimal motion control based on system state estimation		
8	Sensory support for motion control processes.		