

AUTHOR INDEX

- Abhaikumar, V. 622
Abuthakeer, S. Syath 58
Agarwal, Vanita R. 363
Aggarwal, R.K. 126
Agrawal, P. 239
Ahmed, Zakwan 147
Anitha, G. 650
Arun Kumar, 441
Ashok Kumar, 183
Asthana, S.N. 436
Avasthi, D.K. 356, 401, 425
Aydogan,Emel Kizilkaya 273
Aytürk, Saim 273
- Banerjee, Goutam 152
Basu, B.N. 549
Basu, P.K. 395
Bhan, R.K. 580
Bharkar, Upendra V. 215
Bhattacharya, B. 294
Bhattacharyya, R. 377
Binder, Jiri 300
Bo, Xu 545
Buragohain, M. 230
- Chakraborty, B.R. 356
Changjing, Xia, 131, 499
Chaudhary, Monika, 590
Chaudhary, Monika, 634
Chaudhuri, C. Roy, 557
Chen, Chi-Nan 63
Chen, Chi-Teh 113
Chen, Cun-Gin 265
Choudhary, Vineeta 524
Chu, Chang-Min 63
Das, Rajiv Kumar, 659
- Das, S.** 99
Datta, S.K. 49, 549
Deepak Kumar, 3
Deyun, Xiao 43
Dhaul, Anuradha 342
Diva, K. 356
Dongjie, Xue 499
Duan, Xiao-jun 15
Dubey, Rama 82
Duer, Stanislaw 305
Dutt, M.B. 328
- Gaikwad, Leeladhar 505
Ganesan, K. 512
Garg, Rajesh Kumar, 659
Gencer, Cevriye 273
Ghatak,J. 351
Ghosh, A.K. 471
Ghosh, S. 371
Gui Lele 22
Gupta, Amita, 590
- Gupta, Amita, 634
Gupta, Sanjay Mohan 147
Han, D.L. 284
Han, X. 284
Hongqiang, Wang 537
- Ilieșcu, Ciprian, 595
- Jalwania, C.R. 580
Jana, A.M. 137
Jayachran, T. 215
Jayakumar, T. 106
Jiachun, Wang 545
Jiaming, Shi 545
Jian-jun Huang 197
Jiaxiang, Yu 43
Jin, Wenrui 466
Jing-xiong, Huang 197
Joshi, B.K. 524
- Kabiraj, D. 356
Kalakkath, Prakasan, 675
Kamal, S.S. Kalyan 447
Kamat, Samir V. 605
Kanagaraj, Ranganathan, 675
Kanjilal, D. 351
Kannan, G.K. 505
Kanthamani, S. 622
Kapoor, A.K. 342
Krishna, H.S. 670
Krishna, Ravi 471
Krishna, Y. 485
Krishna, Y. 642
Kuca, Kamil 300
Kumar, N.S. 505
Kumar, T. Jagadeesh 447
Kushari, Abhijit 471
- Lalit Kumar, 49, 549
Li, Fengsheng 37
Li, S.F. 284
Liang, Wu 537
Liang-qun, Li 197
Lin, Z.K. 284
Liping, Chen 499
Liu, Cheng-Yu 113
Liu, Yun-Tien 265
Lomash, S.K. 580
Lu, Fang-Chuan 63
Ludong, Jiang 43
- Madej, Wieslaw 162, 530
Madhavi, M. 73
Mahapatra, D. Roy 252
Maini, A.K. 459
Majumder, Subrata 413
Meena, A.K. 590
Mehilal 294

- Mishra, R.N. 3
Mittal, Vna 395
Mohan, S.Vijay, 622
Mohan, V. 622
Mohanram, P.V. 58
Muralidharan, R. 363
Murthy, A. Linga 485
Murthy, G.S.N. 441
Murthy, Linga A. 642
Murthy, S.G.K. 314
Murthy, S.S. 326
Murti, V.S.R. 485
Naidu, V.P.S. 175
- Nair, Praveen 215
Nambissan, P.M.G. 329
Nandgopal, S. 294
Narendra Kumar, 147
Natarajan, V. 616
Negi, P.S. 126
Nirmala L. 505
- Padaki, V.C. 441
Pai, A. Gopalkrishna 627
Pal, R. 395
Pal, Tapas Kumar 189
Paramanik, Dipak 413
Pathak,Uma 512
Pillai, Sakuntala S. 517
Pohanka, Miroslav 300
Prakash, Y.S. 441
Prasad, J.K. 99
Puranik, Balachra 215
- Radhakrishnan, K.K. 294
Rai, Nishant Kishore 239
Raj, Baldev 106
Raju, S. 622
Ram Saran 183
Ramalingam, R. 650
Ramanujam, S. 239
Rao, A. Subhana 436
Rao, B.P.C. 106
Rao, K.Narayana 73
Rao, K.U. Bhasker 82
Rao, K.V.J. 73
Rao, P. Raja Ramana 49
Rao, P.V.L. 137
Ravindra Kumar, 260
Rawal, D.S. 363
Reddy, G.R. 239
Reddy, S.U.M. 49
Rui, Guo 43
- Saha, H. 557
Sahni, Manoj 260
Sahoo, P.K. 447
Sahoo, S.R. 413
Sakri, M.I. 58
Saravanan, S. 58
Sarma, E. Gopalakrishna 517
Sarvanan, V.K. 590
Sasi, B. 106
- Sastry, D.V.K. 568
Sathyaseelan, K. 137
Satpati, B. 351
Satyanarayana, B.S. 627
Satyawali, P.K. 126
Saxena, R.S. 580
Sehgal, B.K. 363
Sekharam, K. Raja 314
Shailesh Kumar, 590
Shami, T.C. 82
Shanmugam, J. 650
Sharma, H.S. 363
Sharma, R.K. 342, 395
Sharma, S.K. 342
Sharma, Sanjeev 30, 260
Sharma,Manoj 512
Shekhar, Himanshu 494, 666
Shen, Ben-Jian 55
Sheng, Ding-Yi 55
Shunhong, Wang 499
Shunshan, Feng 22, 131
Simha, Upendra 505
Singh, A.K. 205, 447
Singh, Akash 616
Singh, P.P. 294
Singh, Ranvir, 590
Sinha, O.P. 351
Sinha, S. 49
Som, T. 351
Somasundaram, Ramshankar 675
Song, Xiaolan 37
Sood, N. 205
Sreedhar, B. 447
Srivastava, Hari Babu 166, 183
Srivastava, S.K. 425, 447
Sun, Huai-Ku 265
Sundaram, S.S. 166
Sunil Jain, 294
Surit, Rhishabh 471
Sutrakar, Vijay Kumar 252
- Tan, Ji-Chun 55
Tay, Francis E.H. 595
Thomas, K.A. 616
Tiwari, Shailendra Kumar, 627
Tripathi, N.K. 137
Trivedi, Kunal K. 627
- Varma, Shikha 413
Velmurugan, R. 230
Venkatraj, V. 239
Verma, A.L. 459
Verma, H.K. 166
Vijayaraghavan, R. 512
Vinod Kumar, 166
- Wang, Gang 15
Wang, Jian-Liang 63
Wang, Liduan 466
Wang, T.F. 284
Wang, Zheng-ming 15
Wei-xin, Xie, 197

Xia Changjing 22
Xiang, Li 537

Yadav, H.S. 436
Yang, Geng 55
Yang, Yu-Chuan 55
Yongxiang, Dong 22, 131, 499
Yu, Liming, 595
Yupeng, Zhu 537

Zhai, Chuanrun 466
Zhan, Xingqun 466
Zhang, L.Y. 284
Zhang, Yanhua 466
Zhao, F.Q. 284
Zhiyu, Shao 131
Zhongcai, Yuan 545

TITLE INDEX

Aeronautics & Flight Mechanics

Ambiguity Function Method Scheme for Aircraft Attitude Sensor Utilising GPS/GLONASS Carrier Phase Measurement, 466
Angular Orientation of Anti-Aircraft Gun for Interception of a Moving Air Target, 3
Anomalies in the Flow over Projectile with Wrap-around Fins, 471
Conversion Method of Impact Dispersion in Substitute Equivalent Tests Based on Error Propagation, 15
Cowl Deflection Angle in a Supersonic Air Intake, 99
Design of Packaging for Microballoon Actuators and Feasibility of their Integration within Aerodynamic Flight Vehicle, 485
Development of Eddy Current Test Procedure for Non-destructive Detection of Fatigue Cracks and Corrosion in Rivets of Air-intake Structures, 106
Modelling and Simulation of Multi-target Multi-sensor Data Fusion for Trajectory Tracking, 205
Multiple Model Rao-Blackwellized Particle Filter for Maneuvering Target Tracking, 197
Pre-flight Functionality Check to Enhance Mission Efficacy of Precision Guided Munitions, 459
Simulation of Thermo-fluid Interactions in Cryogenic Stage Turbine Startup System using AUSM+-UP-based Higher-order Accurate Flow Solver, 215
Tracking the Warhead Among Objects Separated from the Reentry Vehicle in a Clear Environment, 113

Applied Physics & Fluid Dynamics

Buckling Analysis of Composite Hexagonal Lattice Cylindrical Shell using Smeared Stiffener Model, 230
Dynamic Behaviour of Concrete Sandwich Panel under Blast Loading, 22
Effects of Isothermal and Adiabatic Thermal Loadings on Size and Strain Rate Dependence of Copper Nanowire, 252
Elastic-plastic Transition of Transversely Isotropic Thick-walled Rotating Cylinder under Internal Pressure, 260
New Density-based Thermal Conductivity Equation for Snow, 126
Seismic Response Control Systems for Structures, 239
Thermo Creep Transition in Non-homogeneous Thick-walled Rotating Cylinders, 30

Armaments & Explosives

Critical Shock Energy and Shock and Detonation Parameters of an Explosive, 436
Dependence of Particle Size and Size Distribution on Mechanical Sensitivity and Thermal Stability of Hexahydro-1, 3, 5-trinitro-1, 3, 5-triazine, 37

Design of Funnel Port Tubular Propellant Grain for Neutral Burning Profile in Rockets, 494
Dynamic Analysis of a Vehicular-mounted Automatic Weapon-Planar Case, 265
Estimation of Pressure Index and Temperature Sensitivity Coefficient of Solid Rocket Propellants by Static Evaluation, 666
Evaluation of a Light Machine Gun using Analytic Network Process, 273
Numerical Analysis on Protecting Performance of Layered Arch Structures Subjected to Blast Loading, 131
Propagation Characteristics of Explosive Waves in Layered Media-Numerical Analysis, 499
RDX/AP-CMDB Propellants Containing Fullerenes and Carbon Black Additives, 284
Size and Shape of Ammonium Perchlorate and their Influence on Properties of Composite Propellant, 294

Biomedical Sciences

Bromo-butyl Rubber for Face Piece of Respiratory Mask, 505
High Yield Production of Heterologous Proteins with *Escherichia coli*, 137
Isolation of cDNA fragment of Glycerol-3-Phosphate Acyltransferase Gene from Seabuckthorn, 147
Prophylactic Efficacy of Amifostine, DRDE-07, and their Analogues against Percutaneously Administered Nitrogen Mustards and Sulphur Mustard, 512
Sarin Assay using Acetylcholinesterases and Electrochemical Sensor Strip, 300
Submarine Escape Set Test Facilities, 441

Computers & Systems Studies

Artificial Neural Network-based Technique for Operation Process Control of a Technical Object, 305
Computations of Coordinates in the Multidimensional Digital Prediction System, 530
Digital Communication Channel Equaliser using Single Generalised Neuron, 524
Fuzzy Cognitive Maps for Identifying Critical Path in Strategic Domains, 152
Highly Accurate Multi-layer Perceptron Neural Network for Air Data System, 670
Image Pre-processing Algorithms for Detection of Small/Point Airborne Targets, 166
Measuring Errors' Spectrum of the Artillery Radar Stations, 162
New Geo-location Approach Based on Camera Coordinates and Common Points on Multiple Images, 43
Soft Computing for Robust Secure Wireless Reception, 517

Software Reliability through Theorem Proving, 314

Electronics & Instrumentation

- Analysis of Dielectric Loss in a Helix Slow-Wave Structure, 549
- Anti-jamming of Inverse Synthetic Aperture Radar Based on Slope-varying Linear Frequency Modulation Signal, 537
- Backward-Wave Oscillation Criterion in a Step-Tapered Helix Travelling-Wave Tube, 49
- Cascade Protector for Hardening Electronic Devices against High Power Microwaves, 55
- Characterisation of Ion Implantation-induced Defects in Solids by Positron Annihilation, 329
- Characterisation of Semiconductor Materials/Device Structures using SIMS, 342
- Characterisation of Swift Heavy Ion-induced Mixing using Secondary Ion Mass Spectrometry, 356
- Circular Capacitance Micromachined Ultrasonic Transducer, 627
- Complementary Metal Oxide Semiconductors-Microelectromechanical Systems Integration, 557
- Deformable Membrane Mirror for Wavefront Correction, 590
- Design and Analysis of MEMS-based Microballoon Actuators for Aerodynamic Control of Flight Vehicles, 642
- Dry Etching of *GaAs* to Fabricate Via-Hole Grounds in Monolithic Microwave Integrated Circuits, 363
- Dynamic Characteristics of Drop-substrate Interactions in Direct Ceramic Ink-jet Printing using High Speed Imaging System, 675
- Electronic Sputtering of Nanodimensional Hydrogenated Amorphous Carbon and Copper Oxide Thin Films, 371
- Error Analysis of Aerosol Extinction Cross Section Measurement due to Forward Scattering and Diffraction, 545
- Estimation of Fatigue-life of Electronic Packages Subjected to Random Vibration Load, 58
- Experimental Techniques for the Measurement of Mechanical Properties of Materials Used in Microelectromechanical Systems, 605
- Fabrication of Polymeric Microcantilevers, 616
- Fusion of Radar and IRST Sensor Measurements for 3-D Target Tracking using Extended Kalman Filter, 175
- Global Environmental Microelectromechanical Systems Sensors: Advanced Weather Observation System, 659

- Guest Editorial: Special Issue on Ion Beam Technology, 328
- Indigenous Ion Sources for Material Processing, 377
- Ion Beam-based Techniques for Mercury Cadmium Telluride Infrared Detectors, 395
- Median Predictor-based Lossless Video Compression Algorithm for IR Image Sequences, 183
- Meshless Analysis of Radio Frequency Microelectromechanical Systems Shunt Switch, 622
- Microcantilever-based Sensors, 634
- Microelectromechanical Systems Inertial Measurement Unit Error Modelling and Error Analysis for Low-cost Strapdown Inertial Navigation System, 650
- Modification and Characterisation of Materials by Swift Heavy Ions, 401
- Nano Pattern Formation and Surface Modifications by Ion Irradiation, 413
- Particle Manipulation by Miniaturised Dielectrophoretic Devices, 595
- Radio Frequency Microelectromechanical Systems in Defence and Aerospace, 568
- Ray-Trace of an Abnormal Radar Echo using Geographic Information System, 63
- Series Resistance of Silicon Millimeter Wave (Ka-band) IMPATT Diodes, 189
- Swift Heavy Ion Beam-induced Recrystallisation of a Buried Silicon Nitride Layer, 351
- Swift Heavy Ion-induced Mixing, 425
- Uncooled Infrared Microbolometer Arrays and their Characterisation Techniques, 580

Materials Science & Metallurgy

- Design and Analysis of Filament Wound Composite Pressure Vessel with Integrated-end Domes, 73
- Microencapsulation Technology and Applications, 82
- Synthesis of Silver Nanoparticles using Facile Wet Chemical Route, 447

Miscellaneous

- Defence Science Journal*: Sixty Successful Years of Publication, 321
- My Journey with *Defence Science Journal*, 326

SUBJECT INDEX

3-D target tracking, 175

- AChE, 300
- Acute toxicity, 512
- Adaptive mirrors, 590
- Adaptive optical systems, 590
- Adiabatic thermal loading, 252
- Aerodynamic control, 485, 642
- Aerosol, 545
- AFM *see* ambiguity function method
- Airborne target, 166
- Aircraft testing, 15
- Air-intake structures, 106
- Algorithms, 162, 166
- Allan variance, 650
- Ambiguity function method, 466

- Amifostine, 512
- Ammonium perchlorate, 294
- Amperometric, 300
- Amplifier design, 49
- Analytic network process, 273
- Angular orientation, 3
- ANN *see* artificial neural network
- Anti-aircraft guns, 3
- Antidotes, 512
- Anti-jamming, 537
- Artificial neural network, 305, 524
- Artillery radar station, 162
- Atmospheric refractivity, 63
- Atomic mixing, 356
- ATR *see* automatic target recognition
- Attitude sensor, 466

- AUSM+-UP-based finite volume solver, 215
 Autocorrelation, 162
 Automatic target recognition, 537
 Automatic weapon, 265
 Autopilot software, 314
 Average particle size, 294
- Backpropagation, 670
 Backward-wave oscillation, 49
 Ballistic computations, 162
 Biological sensors, 616, 634
 Bio-MEMS, 595
 Biosensor, 300
 Biosynthesis of phosphatidylglycerol, 147
 Blast loading, 22
 Blast resistance, 131
 Bolometer, 580
 Bromo-butyl, 505
 Buckling analysis, 230
 Burning rate, 284
 Burning rate, 666
- Calibration, 670
 Camera coordinates, 43
 Capacitance micromachined ultrasonic transducer, 627
 Cell manipulation, 595
 Central frequency, 627
 Ceramic particles sedimentation, 675
 Ceramic substrate, 675
 Chamber pressure, 666
 Channel equaliser, 524
 Chemical synthesis, 447
 Chemical warfare agents, 512
 Circuit attenuation, 549
 Circuit RF loss, 549
 Clutter 197
 CMDB propellant, 284
 CMOS *see* complementary metal oxide semiconductors
 CMUT *see* capacitance micromachined ultrasonic transducer
 Cold tolerance, 147
 Collapse voltage, 627
 Combustion properties, 284
 Common operational picture, 63
 Complementary Metal Oxide Semiconductors, 557
 Composite propellants, 294
 Concrete sandwich panel, 22
 Conductance, 189
 Control surface, 485
 Control systems, 305
 Coordinates system, 530
 COP *see* common operational picture
 Coplaner waveguide platform, 622
 Copper nanowires, 252
 Cowl deflection angle, 99
 Cowl deflection, 99
 Creep, 30
 Critical route, 152
 Critical shock energy, 436
 Curved shock, 471
 Curve-fitting, 670
 Cyclone, 659
- Data association, 205
- Deceptive jamming, 537
 Decision analysis, 152
 Decision support systems, 152
 Defect analysis, 329
 Defect engineering, 401
 Deformable membrane mirrors, 590
 Degradation, 505
 DEP *see* dielectrophoresis
 Deployable flow effectors, 485
 Deployment, 659
 Depth compensator, 441
 Depth profiling, 342
 Detection, 634
 Detector fabrications, 395
 Detonation, 436
 Dielectric attenuation, 549
 Dielectric loss, 549
 Dielectrophoresis, 595
 Dielectrophoretic devices, 595
 Diffraction analysis, 545
 Diffraction, 545
 Digital communication, 524
 Digital prediction system, 162
 Digital system, 530
 DIP *see* dual in-line package
 Direct ceramic ink jet printing, 675
 Dispersion conversion, 15
 Doppler blurring, 537
 Doppler domain averaging, 537
 Double difference, 466
 DRDE-07, 512
 Drop formation, 675
 Drop impact, 675
 Drop spread, 675
 Dual in-line package, 58
 DX/AP-CMDB propellants, 284
 Dynamic behaviour, 642
- Eddy currents, 106
 Effective extinction efficiency, 545
 Elaeagnaceae, 147
 Elastic recoil detection analysis, 371
 Elastic-plastic transition, 260
 Electronic energy-loss-defects in materials, 401
 Electronic package reliability, 58
 Electronic sputtering, 371
 Electron-positron annihilation, 329
 Emulsion, 82
 Equivalent circuit analysis, 549
 Error analysis, 15, 545
 Error modelling, 650
 Error spectrum, 162
Escherichia coli, 137
 Etching processes, 395
 Etching, 363
 Experimental techniques, 605
 Explosive wave propagation, 499
 Explosive wave, 499
 Explosives chemical sensors, 634
 Explosives, 436
 Extended Kalman filter, 113
- Fabrication 413, 616

- Fast and efficient lossless image compression system, 183
 Fatigue crack, 106
 FELICS *see* fast and efficient lossless image compression system
 Fermentation, 137
 Filament winding, 73
 Finite element analysis, 642
 Finite element method, 265
 Foam material, 22
 Forward scattering, 545
 Fullerene, 284
 Fusion schemes, 175
 Fuzzy cognitive map, 152
 Fuzzy logic, 517
- GaAs, 363
 Gelatin, 447
 GEMS *see* Global environmental MEMS sensors
 Genetic algorithm, 517
 Geodesic path, 73
 Geographic information system, 63
 Geo-location, 43
 GIS *see* geographic information system
 Global environmental MEMS sensors, 659
 Global positioning system, 466
 GLONASS, 466
 Glycerol-3-phosphate acyltransferase, 147
Go/No Go testing, 459
 GPAT *see* glycerol-3-phosphate acyltransferase
 GPS *see* global positioning system
 Guided weapons, 459
 Gun laying equations, 3
- Hardening, 55
 Hazardous chemicals, 634
 Helix slow-wave structure, 549
 Helix travelling-wave tube, 49, 549
 Heterostructures, 342
 Hidden corrosion, 106
 High cell density, 137
 High power microwave, 55
 Higher order statistics, 517
 High-resolution transmission electron microscopy, 351
Hippophae rhamnoides, 147
 HMX, 436
 HR-TEM *see* High-resolution transmission electron microscopy
 Hypoxia, 441
- ICP *see* inductivity-coupled plasma
 Image pre-processing, 166
 Impact dispersion, 15
 IMPATT diode, 189
 IMU *see* Inertial measurement unit
 Induced defects, 329
 Inductivity-coupled plasma, 363
 Inertial measurement unit, 650
 Infrared detectors, 395
 Infrared imaging, 580
 Inner product, 670
 Input estimation, 113
 Instrumentation, 568
 Integrated design, 557
 Integrated systems, 557
 Interacting multiple models, 205
- Internal ballistics, 666
 Inter-symbol interference, 524
 Inverse synthetic aperture radar, 537
 Ion beam milling, 356, 395
 Ion beam sources, 356, 371
 Ion beam-induced recrystallisation, 351
 Ion beams, 356
 Ion energy loss, 401
 Ion fluences, 356
 Ion implantation, 329, 342, 377, 395
 Ion implanters, 371
 Ion irradiation, 413
 Ion mass spectrometry, 356
 Ion source, 371
 Ion-beam mixing, 425
 IR detectors, 395, 580
 IR seekers, 459
 IR-guided missiles, 459
 IRST sensor measurements, 175
 ISAR *see* inverse synthetic aperture radar
 Isothermal loading, 252
 Isotropic, 260
- JEDEC standard, 58
 Joint Pictures Experts Group-Lossless, 183
 JPEG-LS *see* Joint Pictures Experts Group-Lossless
 Kalman filter, 175
 KG chamber, 441
 Kinetics, 37
 Knowledge bases, 305
- Lagrange multiplier, 265
 Laser-guided munitions, 459
 Lattice patterns, 230
 Layered arch structure, 131
 Layered media, 499
 Least square reconstruction, 215
 Linear frequency modulator, 537
 Logistic function, 670
 Lossless image compression system, 183
 Lossless video compression, 183
- MADM *see* multi-attribute decision-making
 Material synthesis, 401
 Materials characterisation, 329, 401
 Materials defects, 329
 Materials processing, 371
 Materials research, 401
 Materials science, 329, 356, 371, 401
 Mathematical formulation, 494
 Matrix crack failure, 73
 Measurement errors, 15
 Mechanical impedance, 627
 Mechanical properties, 605
 Mechanical sensitivity, 37
 Mechlorethamine, 512
 Median predictor-based lossless video compression, 183
 MEMS devices, 622
 MEMS in aerospace, 568
 MEMS in defence, 568
 MEMS *see* microelectromechanical system
 Mercury-cadmium-telluride detectors, 395
 Meshless analysis methods, 622

- Metallic nanowires, 252
 Microballoon actuators, 485, 642
 Microbolometer, 580
 Microcantilevers, 616, 634
 Microcapsule, 82
 Microelectromechanical system, 557, 590, 595, 605, 659, 642, 650
 Microencapsulation technology, 82
 Micromachined deformable mirrors, 590
 Micromachined cantilever platforms, 634
 Micromechanical components, 568
 Microstereolithography, 616
 Microsystems, 568
 Microwave power leakage, 55
 Military application, 273
 Military communication, 622
 Missile model 471
MMIC see monolithic microwave integrated circuit
MMRBPF see multiple model rao-blackwellized particle filter
 Molecular dynamics simulation, 252
 Monodispersion, 447
 Monolithic microwave integrated circuit, 363
 Monsoon, 659
 Moving air target, 3
 MPLVC algorithm, 183
 MSDF see multi-sensor data fusion
 MSL see Microstereolithography,
 MTT see multiple-target tracking
 Multi-attribute decision-making, 273
 Multiple model Rao-blackwellized particle filter, 197
 Multiple model, 197
 Multiple-target tracking, 205
 Multi-sensor data fusion, 205
- Nanobridge structure, 252
 Nano-electronic device fabrication, 252
 Nanosystems, 252
 Nanotechnology, 413, 447
 Nerve agent, 300
 Networking, 659
 Neural networks, 305, 517
 Neuron, 670
 Neutral burning profile, 494
 Nitrogen mustards, 512
 Nose cone, 485
 Nuclear energy loss, 401
 Numerical analysis, 131
 Numerical simulation 99, 499
- Operational tests, 15
 Optical transmissivity, 545
 Organophosphate, 300
- Particle shape, 294
 Particle sizes, 37
 Passive dampers, 239
 Perceptron, 670
 Performance evaluation, 175
PGM see precision-guided munitions
 Pharmaceuticals, 82
 PIN diode limiter, 55
 PKY tester, 441
 Plasma limiter, 55
 Polymer cantilevers, 616
- Polymers, 82
 Polyvinyl pyrrolidone, 447
 Positron annihilation, 329
 Precision-guided munitions, 459
 Prediction system, 530
 Pre-flight functionality checks, 459
 Preprocessing filters 166
 Pressure index, 666
 Pressure probe, 670
 PRF code, 459
 Probabilistic data association filter, 113, 197
 Progressive failure, 73
 Projectile, 471
 Propellant geometry, 494
 Propellant grain, 494
 Prophylactic efficacy, 512
 Protective performance, 131
PVP see polyvinyl pyrrolidone
- Radar navigation, 15
 Radar system, 305
 Radio frequency microelectromechanical systems, 557, 568
 Random vibrations, 58
 Rao-blackwellized particle filter, 197
 RDX, 37, 436
 RDX/TNT, 436
 Reactive ion etching, 395
 Real time system 530
 Release mechanisms, 82
 Reproducing kernel particle method, 622
 Resolver, 530
 Respiratory mask, 505
RF MEMS see radio frequency microelectromechanical systems
 RF MEMS switches, 622
 RF MEMS technology, 622
 RF systems, 568
RIE see reactive ion etching
 Ritz buckling analysis, 230
 Rivets, 106
RKPM see reproducing kernel particle method
 Robust secure wireless reception, 517
 Roll reversal, 471
 Rotating cylinder, 30, 260
- Saline exposure, 505
 Sarin, 300
 Scale up media, 137
SCNR see signal-to-noise plus clutter ratio
 Seabuckthorn, 147
 Secondary ion mass spectrometry, 342
 Seeker, 459
 Selected area diffraction pattern, 351
 Semiconductor nanostructures, 413
 Sensors, 252, 557, , 616, 634
 Sequential importance sampling, 197
 Series resistance, 189
SES see submarine escape set
 Shape factor, 294
SHI see swift heavy ion
 Shock structure, 471
 Shock, 436
 Shunt switches, 622
 Signal-to-noise plus clutter ratio, 166

- Silicon nitride, 351
 Silver nanoparticles, 447
SIMS see secondary ion mass spectrometry
 Simulation analysis, 162
 Single difference, 466
 Single generalised neuron, 524
 Size distribution, 37
 Slow-wave structure, 49
 Small signal equivalent circuit, 627
 Small signal, 189
 Small/point airborne target, 166
 Smeared stiffener model, SSM, 230
 Snapback voltage, 627
 Snow microstructure, 126
 Snowpack, 126
 Soft computing, 517
 Software model checking, 314
 Software reliability, 314
 Software testing, 314
 Software theorem proving, 314
 Solenoid valve, 485
 Solid freeform fabrication, 675
 Solid motor, 215
 Solid rocket propellant, 666
 Solution mapped flux limiters, 215
 Space thrusters, 371
 Special materials, 329
 Spectral density of power, 162
 Spectrometry 342
 Splashing, 675
 SSM see smeared stiffener model
 Stabilisers, 82
 Stabilising agents, 447
 Stanford temporal theorem prover, 314
 Static evaluation, 666
 STeP see Stanford temporal theorem prover
 Step-taper circuit, 49
 Strapdown inertial navigation system, 650
 Strategic domain, 152
 Strategic materials, 329
 Strategic weapons, 15
 Submarine escape set, 441
 Substitute tests, 15
 Sulphur mustard, 512
 Supersonic air-intake, 99
 Susceptance, 189
 Swift heavy ions, 351, 356, 371, 401, 425
 Swift ion beam, 351
- SWS see Slow-wave structure
 Synaptic weights, 670
- Target tracking, 175, 197
 Technical diagnostics, 305
 Technical operation, 305
 Temperature sensitivity, 666
 Thermal conductivity, 126
 Thermal loading, 252
 Thermal mass flow meters, 441
 Thermal oxidation, 505
 Thermal spike model, 356, 425
 Thermal spike, 371
 Thermal stability, 37
 Thermal stresses, 30
 Titanium, 580
 Tracking algorithm, 113, 175
 Training network, 670
 Trajectory estimation, 113
 Transducer, 627
 Transient enhanced diffusion, 425
 Transition theory, 30
 Transversely isotropic cylinder, 260
 Travelling-wave tube, 49
 TSWD see tuned sloshing water dampers
 Tubular propellant grain, 494
 Tuned liquid dampers, 239
 Tuned sloshing water dampers, 239
 Turbine inlet manifold, 215
 TWT see Travelling-wave tube
- UAV see unmanned aerial vehicle
 Uncooled microbolometer detectors, 580
 Underground structures, 131
 Unmanned aerial vehicle, 43
 Unstructured meshes, 215
- Variance, 162
 Via-hole, 363
- Wave impedance, 499
 Wavefront correction, 590
 Wavelet decomposition, 650
 Weather forecast, 659
 Weather research and forecast model, 63
 Wrap-around fins, 471
 WRF model see weather research and forecast model
- Yeast extract, 137

CORPORATE INDEX

- Advanced Systems Laboratory, Hyderabad-500058, **230**
 Aerial Delivery Research and Development Establishment, Agra-282 001, **471**
 Aeronautical Development Agency, Bangalore-560 017, **670**
 Aeronautical Development Establishment, Bangalore-560 075, **252**
 All India Council for Technical Education, New Delhi, **73**
 AMITY Institute of Nanotechnology, Noida-201 303, **351**
 Amity University, Noida, UP, **459**
 Anna University, Chennai - 600 044, **650**
- B.I.T. Extension Centre Noida-201 301, **260**
 Banaras Hindu University, Varanasi-221 005, **549**
 Beijing Institute of Technology, Beijing-100 081, **22, 131, 499**
 Bengal Engineering and Science University, Howrah-711 103, **557**
 Bhaba Atomic Research Centre, Mumbai-400 078, **239**
 Bigtec Private Limited, Bangalore-560 082, **622, 627**
 Birla Institute of Technology, Mesra, Ranchi-835 215, **99**
- Central Glass & Ceramic Research Institute, Kolkata-700 032, **152**

- Charles University in Prague, Czech Republic, **300**
 China University of Mining & Technology, Beijing-100 083, **22, 131, 499**
 Chung Cheng Institute of Technology, National Defense University, **63, 265**
- Dalian Naval Academy, Dalian-116018, **43**
 Defence Agricultural Research Laboratory, Haldwani-263 139, **147**
 Defence Bio-Engineering and Electromedical Laboratory, Bangalore-560 093, **441, 505**
 Defence Institute of Advanced Technology, Pune-411 025, **205**
 Defence Materials & Stores Research & Development Establishment, Kanpur-208 013, **82**
 Defence Metallurgical Research Laboratory, Hyderabad-500 058, **447, 605**
 Defence Research & Development Laboratory, Hyderabad – 500 058, **314**
 Defence Research and Development Establishment, Gwalior -474 002, **137, 512**
 Defence Research and Development Laboratory, Hyderabad-500 058, **485, 642**
 Defence Sciences Institute, Turkish Military Academy, Ankara/Turkey, **273**
 Department Atomic Energy, Mumbai-400 094, **239**
 Department of Automation, Tsinghua University, Beijing-100084, **43**
 Department of Electronics and Computer Studies, Poland, **162**
 Directorate of Personnel, DRDO, New Delhi-110 105, **147**
 Directorate of Standardisation, Ministry of Defence, New Delhi - 110 011, **3**
- Environment, Science & Technology Office, US Embassy, New Delhi-110 021, **627**
 Erciyes University, Kayseri/Turkey, **273**
- Gazi University, Ankara/Turkey, **273**
- Hefei Electronic Engineering Institute, Hefei-230037, **545**
 High Energy Materials Research Laboratory, Pune-411 021, **294, 436, 494, 505, 666**
- Indian Institute of Chemical Technology, Hyderabad-500 007, **447**
 Indian Institute of Science, Bangalore-560 012, **252**
 Indian Institute of Technology Bombay, Mumbai-400 076, **215**
 Indian Institute of Technology Delhi, New Delhi-110 016, **371**
 Indian Institute of Technology Madras, Chennai-600036, **230**
 Indian Institute of Technology Roorkee, Roorkee-247 667, **3, 166**
 Indian Institute of Technology, Kanpur-208 016, **471**
 Indian Institute of Technology, Kharagpur-721 302, **425, 447**
 Indira Gandhi Centre for Atomic Research, Kalpakkam-603 102, **106**
 Institute for Minerals and Materials Technology, Bhubaneswar-751 013, **351**
 Institute of Bioengineering and Nanotechnology, Singapore-138 669, **595**
 Institute of Physics, Bhubaneswar-751 005, **351, 413**
 Instruments Research & Development Establishment, Dehradun-248 008, **166, 183**
 Integrated Test Range, Chandipur-756 025, **471**
 Inter University Accelerator Centre, New Delhi-110 067, **351, 356, 401, 425**
- Jadavpur University, Kolkata-700 032, **557**
 Jaypee Institute of Information Technology University, Noida-201 307, **30, 260**
- Koszalin University of Technology, Koszalin, Poland, **305, 530**
- Laser Science and Technology Centre, Delhi-110 054, **459**
 Lee-Ming Institute of Technology, Taipei, Taiwan, **113**
 Lourdes Matha College of Science and Technology, Trivandrum-695 574, **517**
- M.V.S.R. Engineering College, Hyderabad-500 079, **73**
 Manipal Institute of Technology, Manipal-576 104, **627**
 Mar Baselios College of Engineering and Technology, Trivandrum-695 015, **517**
 Microwave Tube Research & Development Centre, Bengaluru-560 013 **49, 549**
 Military Academy, China, **63**
 Military College of Telecommunication Engineering, Mhow-453 441, **524**
 Ministry of National Defense, Taipei, Taiwan, **265**
- Nan Jeon Institute of Technology, **63**
 Nanjing University of Science & Technology, Nanjing-210 094, **37**
 National Aerospace Laboratories, Bangalore-17, **175**
 National Physical Laboratory, New Delhi-110 012, **356, 377**
 National University of Defense Technology, Hunan Province-410 073, **15, 55, 537**
 National University of Singapore, Singapore 119 260, **595**
 Naval Physical and Oceanographic Laboratory, Kochi-682 021, **616**
 Navy Material Department, PLA Navy, Beijing-100076, **43**
- PSG College of Technology, Coimbatore-641 004, **58, 675**
- Research Center Imarat, Hyderabad-500 069, **189, 485, 568, 642**
- Saha Institute of Nuclear Physics, Kolkata-700 064, **329**
 Shanghai Jiao Tong University, Shanghai-200 240, **466**
 Shenzhen University, Guangdong-518 060, **197**
 Shri RNS Institute of Pharmaceutical Sciences and Technology, Gwalior, **512**
 Snow and Avalanche Study Establishment, Chandigarh-160 036, **126, 659**
 Snow and Avalanche Study Establishment, Manali-175 103, **126**
 Solid State Physics Laboratory, Delhi-110 054, **342, 363, 395, 580, 590, 634**
 Sri Visvesvaraya Institute of Technology & Sciences, Mahaboob Nagar, **485**
 St. Martin's Engineering College, Hyderabad, **73**
- Tagore Engineering College, Chennai - 600 048, **650**
 Thiagarajar College of Engineering, Madurai-15, **622**
- Ujjain Engineering College, Ujjain-456 010, **524**
 University of Defence, Czech Republic, **300**
 University of Science and Technology of China, Hefei-230 026, **284**
- Vikram Sarabhai Space Centre, Thiruvananthapuram-695 022, **215**
- Xi'an Modern Chemistry Research Institute, Xi'an-710 065, **284**