NANYANG TECHNOLOGICAL UNIVERSITY CV Form for Academic Staff (Part-I)

Name: SHU Dong Wei Present Appointment: Associate Professor School: Mechanical and Production Engineering Division: Engineering Mechanics

Date of 1st Appointment: 30 Aug 1993



Academic Qualifications: (State Name of University, year of award & class of honours)

BS (Top 5%) – Peking University – 1984 MS – Peking University – 1986 PhD – Cambridge University - 1990

Professional Qualifications/Memberships: (State date of membership)

MIEAust. - 1990

Summary of Working Experience: (with dates)

Apr 1990 - Apr 1991 Postdoctoral Fellow, Waterloo University, Canada

Apr 1991 - Jun 1992 Postdoctoral Fellow, Sydney University

Jul 1992 – Sep 1993 Lecturer, Materials Engineering Department, Monash University, Australia

30 Aug 1993 – 31 Dec 1995 Lecturer, NTU

1 Jan 1996 – 31 Dec 1998 Senior Lecturer, NTU

15 Apr 1998 – 14 Apr 2002 Deputy Director, NTU-MINDEF Protective Tech Research Centre, NTU

1 Jan 1999 - Associate Professor, NTU

Jun-Jul 2003, Visitor, Cambridge University Engineering Department, Cambridge, UK

Aug – Sep, Visitor, Institute of Mechanics, Chinese Academy of Science, Beijing, China

Jun 2004 – May 2007, Guest Professor, Shandong University of Architecture and Engineering, China

NANYANG TECHNOLOGICAL UNIVERSITY CV Form for Academic Staff (Part-II)

Name: SHU Dong Wei School: Mechanical and Production Engineering

A. TEACHING

(1) Awards

Tutorship, Mechanics Department, Beijing University, 1984-1985, 20 out of 60 Tutorship, Cambridge University, Engineering Department, 50 out 200

(2) Text-books, book chapters, monograph, software

Brodland GW; Shu D, Are intercellular membrane forces important to amphibian neurulation? *Dynamic Phenomena at Interfaces, Surfaces and Membranes*, Nova Science Publishers, Inc., New York, U.S.A. 1992.

(3) Development of teaching materials, Lecture Notes

M201 Mechanics of Solids

M445 Mechancs of Aerospace Materials

M6131 Mechanics of Advanced Materials

M6133 Mechanics of Composite Materials

M6106 Advanced Mechanics of Materials

M6104 Advanced Mechanics of Materials

IT Materials

M201 Power Point Presentation on edventure

M6106 Power Point Presentation on edventure

Personal webpage www.ntu.edu.sg/home/mdshu: Tutorials, Answers, Timetables etc

(4) Short courses

Technical Chinese for CCE

B. RESEARCH

(1) Awards

Pochobradsky Scholarship for Mechanical Engineering. Churchill College, Cambridge University Australia Research Council Postdoctoral Fellowship, 1991, Sydney University, Australia

(2) Citations Update to 2006 November, Total Cited: 187, Highest Citation of one paper 43

(3) Recognitions

Official visitor, Cambridge University Engineering Department, September 2003, Guest professor, Shandong Architectural Engineering Institute, China, 2004 Official Visitor, Institute of Mechanics, Chinese Academy of Sciences 2003

(4) Achievements with local significance

PI, Seagate Tech Int Pte Ltd, SGDS\$130,000, "LSDYNA Simulation of Drop Test of 1 inch Disk Drives" PI, Seagate Tech Int Pte Ltd, US\$106,000, "LSDYNA Simulation of Drop Test of Hard Disk Drives" PI, MINDEF/DSTA, S\$400,000, "Testing methodology and procedure to assess equipment against instructure shock"

(5) Achievements earning significant publicities for the University

Conference International Scientific Committee Members.

Eighth Asia-Pacific Symposium on Engineering Plasticity and Its Applications. Sept 2006, Nagoya, Japan. Seventh Asia-Pacific Symposium on Engineering Plasticity and Its Applications. Dec 2004, Shanghai,

Sixth Asia-Pacific Symposium on Engineering Plasticity and Its Applications. 2-6, Dec 2002, SydneyICMAT 2001, International conference on Materials for Advanced Technologies, 1-6 July 2001, Singapore

(6) Appointment as external assessor; membership on visiting committees

Reviewers/assesors of research grant committees:

Australian Research Council

HongKong UGC

the City University of HongKong Research Grant

(7) Service as editor and associate editor for international journals

Editorial Board Member, The Open Mechanical Engineering Journal, Bentham Science Publishers Ltd

(8) Service as external examiner for PhD thesis

PhD reviewers, Supervisor MA Guo Wei (CEE), candidates He L, Ye ZQ, An XM 2006,2007

PhD reviewers, Fan SC/CEE/ZhouXiaoQing, 2002.8

PhD reviewers, P Irawan/CEE/NguyenXH

PhD reviewer, Chen Xiao Wei/CEE

PhD reviewer, Meng Hui/CEE

(9) Invited presentations at scientific meetings/workshops

Visiting Professorial Seminars, Shangdong Institute of Architecture, Shangdong China, June 2004 International Workshop on Impact and Crashworthiness (IWIC) 6 Dec 2002, The Beaumont Hotel, Kew, Melbourne, Australia

Annual meeting, Institute of Mechanics, Chinese Academy of Sciences, Beijing, China, Dec 2002.

(10) Service as a reviewer

Reviewers for the following International journals:

Journal of Composites Materials

International Journal of Solids and Structures, based in Stanford University, California;

Journal of Composite Materials, University of California, Los Angeles;

Composite Sciences and Technology.

Journal of EMT; Computational Materials Science (2005-47)

(11) Session chairman / (special) session organizer in conferences

"15th International Conference on Mech in Medicine & Biology", Dec 6-8, 2006 Singapore

"The 8th Asia-Pacific Symposium on Advances in Engineering Plasticity and Its Applications", 25-29 Sept 2006, Nagoya University, Nagoya. Japan, AEPA2006

"The 5th Asia-Pacific Symposium on Advances in Engineering Plasticity and Its Applications", 12-16 June 2000, HKUST, HongKong. AEPA2000

ICMAT 2001, International conference on Materials for Advanced Technologie

5th Asia-Pacific Conference on SHOCK & IMPACT LOADS ON STRUCTURES, 13 - 14 November 2003, Dolton Hotel, Changsha, China

(12) External research funding

PI, Seagate Tech Intnl Pte Ltd, US\$106,000 + SGD130,000, "LSDYNA Simulation of Drop Test of Hard Disk Drives", October 2002 – October 2005

PI, MINDEF/DSTA,S\$400,000, "Testing methodology and procedure to assess equipment against instructure shock", February 2002 – August 2005

A*Star/CMMS FEM Simulation of HDD 90,000 (Co PI), 2002.1-2003.12

A*Star/CMMS (phase II) FEM Simulation of Hard Disk Drive, 100,000 (co PI) Jan 2004-Dec 2006

(13) Research activities

1999.4 Ground shock induced waterhammer problem in fuel pipelines NTU/MINDEF PTRC

1999.5 Energy absorbing devices for protection of critical equipment NTU/MINDEF PTRC

1999.5 Testing methodology and procedure to assess equipment against instructure shock

1999.11 FEM for the contact dynamic problem of flexible structures, NTU/CUED/IC memorandum (collaboration with Dr Stronge of Cambridge University)

2000.1 Metal foams materials as energy absorbing materials, MPE Stragic scheme (collaborator)

2000-01-31Constitutive Model for Reinforced Concretes against Penetration NTU/MINDEF PTRC collaborator PI: A/P Fan S C (CSE), As/P Li QM (CSE), Collaborators: A/P Lok T S (CSE), A/P Shu DW (MPE), S\$500,000

2004-09-22 Proposal to Hitachi Hard Disk Drive, \$200,000 PI (Hitachi R&D)

2004-09-22 Proposal to Seagate Hard Disk Drive (continuation) S\$300,000 (PI) (Seagate Tech International Pte Ltd)

C. SERVICE

(1) Service to the University (appointed by the President)

Deputy Director, NTU-MINDEF Protective Tech Research Centre, NTU, 15 Apr 1998 – 14 Apr 2002

Chief Invigilator Fri 18 April 2008 8.30 A.M. -12:00pm HALL B

Chief Invigilator Wed 23 April 2008 8.30 A.M. – 12:00pm HALL F

Industrial Attachment Aug - Dec2007,

Industrial Attachment January – June 2008,

Ministry of Manpower (1 student),

Singapore Airlines Terminal 2 (1 student)

Airline House, Nicole Drive, (2 students)

Hall Fellow, Hall of Residence 4, July 2005 -now

(2) Other services to the University

Committee Members

2002-now M2072 E2.12 Coordinator

2002-now M2072 E2.12 Part Time coordinator

200206-now School of MAE, NgeeAnn Poly Coordinator,

200804 Examiner of MSc Thesis, LUO Chun Qi MSc MAE Graduate Office,

20080421 Monday Polytechnique admission interview 2pm-5:30pm AC(aca)Leong Kai Choong/Tricia Tan

200805 FE1001 Marker, marks entry, HoD/EM, (one week 20080418 – 20080425)

200803 Examiner of MSc Thesis Phoon Kum Weng MSc MAE plastic hinge energy FEM

20080202 0900-1530 Suntec City, "Lets Talk NTU", as MAE Ngee Ann Poly coordinator

20080120 Examiner of PhD First Year report, He Lei, CEE, supervisor MA Guo Wei

200703 UK/Singapore Symposium, Aerospace Engineering: Challenges and Opportunities (MAE/EM)

2001 - 2007 Mindef - NTU JPP Coordinator,

20070131 Moderation of MP4A06 Non-Destructive Testing Asundi BS Wong

20070131 MP4E04 Mechanisms Design Huang WeiMin

200504 Examiner of MSc Thesis Lilianty RIANG

200503 Examiner of MSc Thesis NG Gim Yeow

MPE Second Year Orientation

MPE Alumni 1999-2000

NTU Junior College Liaison Officer, St. Andrew Junior College, Serangoon Junior College

M445 Subject coordinator 1995 to 1999

G271 E2.12 Coordinator

G271 E2.12 PartTime Coordinator

(3) Public Service

5/2/2008 Annual Appraisal CV of A/P SHU Dong Wei, EM Division, MAE, NTU

NTU MOE Expert Mentors, 2001.3-2001.9, 2002.3-2002.9

(4) Service to professional bodies

Singapore Accreditation Council, Mechanical Testing Committee Member 2003 – June 30, 2009 8th Technical Committee Meeting for the field of Mechanical Testing, 30 October 2006 2-5pm SPRING

(5) Service to society/local industry

AStar Disk Storage Institute, university faculty associate (Liu Bo, 2005 - now)

Paid Consultancy

Hewlett Packard (2003 June)

Shankar Advani (2004 June)

Phillips Domestic Appliance Pte Ltd (2002 March)

Bromma Far East Pte Ltd/Port of Singapore Authority, January 2003

UMW Trading & Engineering Pte Ltd Dec 1994

Unpaid services: Kusatus Electric (Singapore) Pte Ltd

D. WORK LOAD

Workload for Academic Year 2006/2007	Lecture	Tutorial	Laboratory
MP4A5 Mechanics of Aerospace Materials	12		
M6106 Advanced Mechanics of Materials	21		
MP2001 Mechanics of Materials		12	
FE1001		48	
FE1001P		12	
M3071 P3.2 (1)			60
M3071 P3.2 (2)			60
M3071 P3.2 (Part Time, Lim WoonLai)			60
M2072 E2.12			6
M2072 E2.12 P			6
EID (MP2079)			30

E. PUBLICATIONS

Quality of journals

Proceedings of Royal Society London A, Applied Mechanics Review (ASME), International of Solids and Structures (university of Stamford), International Journal of Mechanical Sciences, Journal of Morphology

Summary of Web of Science search on 20070402

Results found=57; sum of the times citied=200; Average citation=3.51; h-index=7; highest citation=48

List of publications by **Shu Dong Wei**

(A) Summary Table

Category	Total no. published to date	No. published from 01-Jan-2005 to 31-Dec-2007
(1) Journal Papers - Overseas	84	49
Journal Papers - Local	0	0
(2) Conference Papers	27	20
(3) Books	0	0
(4) Chapter in Books	1	0
(5) Report and Other Work	about 10	About 8

(B) Publication Listing

Journals (Overseas)

84 Christian N. Della, Dongwei Shu, 2008, *The performance of 1?3 piezoelectric composite with a porous non-piezoelectric matrix*, Acta Materialia, Vol. 56, pp. 754-761.

83 Shi BJ, Li HQ, Shu DW, 2008, *Nonlinear air-bearing slider modeling for hard disk drives with ultra-low flying heights*, Communications in Numerical Methods in Engineering.

- 82 Bin GU, Dong-Wei SHU, Bao-Jun SHI, 2008, SHOCK RESPONCE OF THE CLAMPED DISK IN SMALL FORM FACTOR HARD DISK DRIVE. International Journal of Modern Physics B..
- 81 Bao-Jun Shi, Dong-Wei Shu, Bin Gu, Madhusudhana Rao Parlapalli, Christian Ngalatan Della, Ying-Jie Li, 2008, *STATIC AND DYNAMIC ANALYES OF AIR BEARING SLIDER FOR SMALL FORM FACTOR DRIVES*, International Journal of Modern Physics B..
- 80 Christian N. Della, Dongwei Shu, 2008, *Mechanical Properties of Carbon Nanotubes Reinforced Ultra High Molecular Weight Polyethylene*, Solid State Phenomena, Vol. 136, No. 136, pp. 45-50.
- 79 S.B. Ng, W.M. Huang, D.W. Shu, 2008, *Plastic energy and tearing energy of a NiTi shape memory alloy wire*, Materials and Design, Vol. 29, No. 5, pp. 1066-1069.
- 78 FUJII Yusaku, Shu D.W., 2008, *Impact Force Measurement of an Actuator Arm of a Hard Disk Drive*, International Journal of Impact Engineering, Vol. 35, No. 2, pp. 98-108.
- 77 Chen BJ, Shu DW, Xiao ZM, 2008, *Dislocation interacting with collinear rigid lines in piezoelectric media*, Journal of Mechanics of MATERIALS and STRUCTURES, Vol. 2, No. 1, pp. 23-42.
- 76 Shi Bao Jun, Shu D.W., Wang Shao, Luo Jun, Meng Hui, Quock NG, Joseph HT Lau; Razman Zambri, 2007, Drop test simulation and power spectrum analysis of a head actuator assembly in a hard disk drive, *International Journal of Impact Engineering (United States)*, Vol. 34, pp 120 133.
- 75 Parlapalli Madhusudhana Rao, Shu D.W., 2007, *S-shaped mode in the lower and upper bounds of the buckling of composite beams with two equal delaminations.*, Composite Structures, Vol. 81, pp. 185-194.
- 74 C. N. Della D. Shu, 2007, *Free Vibration Analysis of Multiple Delaminated Beams under Axial Compressive Load*, Journal of Reinforced Plastics and Composites.
- 73 Christian N. Della and Dongwei Shu, 2007, *Effective properties of 1-3 piezoelectric composites: effect of polarization orientation*, SPIE Proceedings, Vol. 6423, No. 1, pp. 642323-1--642323-8.
- 72 Jiang Dazhi, <u>Shu D.W.</u>, 2007, Dynamic Contact Performance of Rubber Materials for Designing Wiper Blades, *Journal of Materials Engineering and Performance (United States)*. (Accepted for publication.)
- 71 Shi Baojun, Shu D.W., Luo Jun, GU Bin, Ma, G.W., Quock Y. Ng, Samuel Gan, 2007, *Operational Shock Simulation of the Head Disk Assembly of a Small-Form Factor Drive*, IEEE Transactions on Magnetics, Vol. 43, No. 11, pp. 4042 4047.
- 70 Della Christian Ngalatan, Shu D.W., 2007, *On the Performance of 1-3 Piezoelectric Composites with a Passive and Active Matrix*, Sensors and Actuators A: Physical, Vol. 140, No. 2, pp. 200-206.
- 69 Parlapalli Madhusudhana Rao, Soh Kwok Chye, Shu D.W., Ma, G.W., 2007, *Experimental Investigation of Delamination Buckling of Stitched Composite Laminates*, Composites Part A Applied Science and Manufacturing, Vol. 38A, No. 9, pp. 2024-2033.
- 68 Parlapalli Madhusudhana Rao, <u>Shu D.W.</u>, 2007, Buckling of composite beams with two non-overlapping delaminations: Lower and Upper bounds., *International Journal of Mechanical*

- Sciences (United Kingdom), Vol. 49, No. 7, pp 793 805.
- <u>67 Shu D.W.</u>, Zhou W., Ma, G.W., 2007, Tensile Mechanical Properties of AM50A Alloy by Hopkinson Bar, *Key Engineering Materials (Switzerland)*, Vol. 340-341, pp 247 254.
- 66 Ma, G.W., H.J. Shi, Shu D.W., 2007, *P-I Diagram Method for Combined Failure Modesof Rigid-plastic Beams*, International Journal of Impact Engineering, Vol. 34, No. 6, pp. 1081-1094.
- 65 Della Christian Ngalatan, Shu D.W., 2007, *Vibration of beams with piezoelectric inclusions*, International Journal of Solids and Structures, Vol. 44, No. 7, pp. 2509-2522.
- 64 Parlapalli Madhusudhana Rao, SOH Kwok Chye, <u>Shu D.W.</u>, 2007, Experimental Investigation of Delamination Buckling of Stitched Composite Laminates, *Composites Part A Applied Science and Manufacturing (United Kingdom)*. (Accepted for publication.)
- <u>63 Shu D.W.</u>, Shi B J, MENG H, Yap F.F., Jiang D Z, NG Q, Razman Zambri, J H T Lau, Cheng C S, 2007, Shock analysis of a head actuator assembly subjected to half-sine acceleration pulses, *International Journal of Impact Engineering (United States)*, Vol. 34, No. 2, pp 253 263.
- 62 Christian Ngalatan Della, <u>Shu D.W.</u>, 2007, Vibration of Beams with Two Overlapping Delaminations in Prebuckled States, *Composites: part B (United Kingdom)*, Vol. 38, pp 109 118.
- 61 C N Della, Shu D.W., 2007, Free Vibration Analysis of Delaminated Bimaterial Beams, Composite Structures, Vol. 80, No. 2, pp. 212-220.
- 60 Della CN, Shu D.W., 2007, *Vibration of Delaminated Composite Laminates: A Review*, ASME Applied mechanics reviews, Vol. 60, No., pp. 1-20.
- <u>59 Shu D.W.</u>, Shi B J, Meng H, Yap F.F., Jiang D Z, Ng Q Y, R. Zambri, J.H.T. Lau, 2006, The pulse width effect of single half-sine acceleration pulse on the peakresponse of an actuator arm of hard disk drive, *Materials Science & Engineering A (Switzerland)*, Vol. 423, No. 1-2, pp 199 203.
- 58 Shi B J, Wang Shao, <u>Shu D.W.</u>, Luo J, Meng H, Ng Q Y, Razman Zambri, 2006, Excitation pulse shape effects in drop test simulation of the actuator arm of a hard disk drive, *Microsystem Technologies (Germany)*, Vol. 12, pp 299 305.
- 57 Della C N, Shu D.W., 2006, Vibration of delaminated multilayer beams, Composites: part B (United Kingdom), Vol. 37, No. 2-3, pp 227 236.
- 56 Shi B J, Shu D.W., Luo J, Ng Q Y, Lau JHT, 2006, *Experimental and Numerical Analyses of the Head Arm Assembly of a Micro-drive*, Key Engineering Materials, Vol. 326-328, pp. 1585-1588.
- 55 LUO Jun, <u>Shu D.W.</u>, SHI B J, GU B, 2006, The Pulse Width Effect on the Shock Response of the Hard Disk Drive, *International Journal of Impact Engineering (United States)*. (Accepted for publication.)
- 54 Parlapalli Madhusudhana Rao, Shu D.W., 2006, Effects of Bridging on Buckling Analysis of Tri-Layer Beams with Multiple Separated Delaminations, AIAA Journal, Vol. 44, No. 9, pp. 2108-2117.
- 53 Parlapalli Madhusudhana Rao, <u>Shu D.W.</u>, 2006, Buckling analysis of two layer delaminated beams with bridging, *European Journal of Mechanics A: Solids (Unknown)*, Vol. 25, No. 5, pp 834 853.

- 52 M Li, J Zhang, J Fang, Shu D.W., W Stronge, 2006, *Dynamic analysis of contact forces in disc assemblies bythe shadow method of caustics*, Journal of Strain Analysis, Vol. 41, No. 8, pp. 609-622.
- 51 Luo Jun, Shu D.W., B. J. Shi, Q. Y. NG, R. Zambri, J. HT. Lau, 2006, Study of the Shock Response of the HDD with ANSYS-LSDYNA, *Journal of Magnetism and Magnetic Materials* (*Netherlands*), Vol. 303, No. 2, pp e57 e61.
- 50 Luo Jun, <u>Shu D.W.</u>, B. J. Shi, Q. Y. NG, R. Zambri, J. HT. Lau, 2006, On the simulation of the pivot bearing inside HDD, *Journal of Magnetism and Magnetic Materials (Netherlands)*, Vol. 303, No. 2, pp e81 e85.
- 49 Chen B J, <u>Shu D.W.</u>, Xiao Z.M., 2006, Electro-elastic interaction of a piezoelectric screw dislocation and collinear rigid lines, *International Journal of Engineering Science (United Kingdom)*, Vol. 44, pp 422 435.
- 48 Della C N, <u>Shu D.W.</u>, 2006, Vibration of Beams With Embedded Piezoelectric Sensors and Actuators, *Journal of Smart Materials and Structures (United Kingdom)*, Vol. 15, No. 2, pp 529 537.
- 47 M Parlapalli, <u>Shu D.W.</u>, Chai G.B., 2006, Analytical Model and Numerical Analysis of Delamination Buckling in Layer Beams, *Solid State Phenomena (Switzerland)*, Vol. 111, pp 75 78.
- 46 Shi B. J., <u>Shu D.W.</u>, Yuan M. W., 2006, Solving Helmholtz Equation by Least-Square Collocation Method Based on Reproducing Kernel Particle Method, *Chinese Journal of Theoretical and Applied Mechanics (China*), Vol. 38, No. 1, pp 125 129.
- 45 Shi Bao Jun, Shu D.W., Wang Shao, Luo Jun, Q Ng, Lau J H T, Razman Zambri, 2005, Shock Response and Power Spectrum Analysis of a Head Actuator Assembly, *Transactions on Engineering Sciences (United Kingdom)*, Vol. 49, pp 470 479.
- 44 Shi B. J., Shu D.W., Song S. J., Zhang Y. M., 2005, Solving Burgers Equation by a Meshless Method, *Modern Physics Letters B (Unknown)*, Vol. 19, No. 28-29, pp 1651 1654.
- 43 Della CN, <u>Shu D.W.</u>, 2005, Vibration of Beams with Double Delaminations, *Journal of Sound & Vibration (United Kingdom)*, Vol. 282, No. 3-5, pp 919 935.
- 42 Della Christian, <u>Shu D.W.</u>, 2005, Free Vibration Analysis of Composite Beams with Overlapping Delaminations, *European Journal of Mechanics A: Solids (Unknown)*, Vol. 24, No. 3, pp 491 503.
- 41 Jiang D Z, <u>Shu D.W.</u>, 2005, Predication of Peak Acceleration of One Degree of Freedom Structures by Scaling Law, *ASCE Journal of Structural Engineering (United States)*, Vol. 131, No. 4, pp 582 588.
- <u>40 Chen B J</u>, Xiao Z.M., Shu D.W., 2005, Micro-defects initiation ahead of a wedge-shaped inhomogeneity, *International Journal of Mechanics and Materials in Design (Netherlands)*, Vol. 2, No. 1-2, pp 49 59.
- <u>39 Della CN</u>, Shu D.W., Zhao Y P, 2005, Free vibration analysis of composite beams with two non-overlapping delaminations, *Acta Mechanica Sinica (China)*, Vol. 21, No. 1, pp 47 55.
- 38 Parlapalli MS Rao, Song H., <u>Shu D.W.</u>, 2005, Buckling Analysis of Tri-Layered Beams with Overlapped Delaminations, *Journal of Composite Materials (United States)*, Vol. 39, No. 2, pp 109 125.

- 37 Jiang Dazhi, Shu D.W., 2005, Local Displacement of Core in Two-Layer Sandwich Composite Structures Subject to Low Velocity Impact, *Composite Structures (United Kingdom)*, Vol. 71, No. 1, pp 53 60.
- 36 P M Rao, T Wenge, Shu D.W., 2005, Buckling Analysis of Tri-Layer Beams with Enveloped Delaminations., Composites: part B (United Kingdom), Vol. 36, No. 1, pp 33 39.
- 35 MSRao Parlapalli, <u>Shu D.W.</u>, 2004, Buckling analysis of two-layer beams with an asymetric delamination., *Engineering Structures (United Kingdom)*, Vol. 26, pp 651 658.
- 34 Della CN, Shu D.W., MSRao P, 2004, Vibrations of beams with two overlapping delaminations. , *Composite Structures (United Kingdom)*, Vol. 66, No. 1-4, pp 101 108.
- 33 Shu D.W., G Lu, 2004, Lateral Crushing of A Rubber Sandwiched Steel Tube., *Key Engineering Materials (Switzerland)*, Vol. 274-276, pp 163 168.
- 32 P. MSRao, <u>Shu D.W.</u>, 2004, Buckling Analysis of Tri-Layer Beams with Double Delaminations. , *Computational Material Science (Netherlands)*, Vol. 30, No. 3-4, pp 482 288.
- 31 Shu D.W., Rao PM, 2004, Buckling Analysis of Bimaterial Beams with Single Asymmetric Delamination., *Composite Structures (United Kingdom)*, Vol. 64, No. 3-4, pp 501 509.
- <u>30 Shu D.W.</u>, CN Della, 2004, Vibrations of Multiple Delaminated Beams, *Composite Structures* (*United Kingdom*), Vol. 64, No. 3-4, pp 467 477.
- 29 P. MSRao, D. Sylvain, <u>Shu D.W.</u>, C.N. Della, 2004, Buckling analysis of tri-layer beams with multiple separated Delaminations. , *Composite Structures (United Kingdom)*, Vol. 66, No. 1-4, pp 53 60.
- 28 Jiang DZ, <u>Shu D.W.</u>, 2004, Effects of damage thresholds on stresses in composite laminates under transverse impact, *Journal of Health Quality Assurance (Unknown)*, Vol. 66, No. 1-4, pp 61 67.
- <u>27 Shu D.W.</u>, Della CN, 2004, Free vibration analysis of composite beams with two non-overlapping delaminations, *International Journal of Mechanical Sciences (United Kingdom)*, Vol. 46, No. 4, pp 509 526.
- 26 Jiang Da Zhi, Shu D.W., 2004, Stress distribution in damaged composite laminates under transverse impact., *Composite Structures (United Kingdom)*, Vol. 63, pp 407 415.
- <u>25 Zong Z</u>, Shu D.W., Jin B, 2003, Analysis of a mode III crack in a functionally gradient piezoelectric material, *Materials Science Forum (Switzerland)*, Vol. 423-4, pp 623 627.
- <u>24 Shu D.W.</u>, 2002, A tube under transverse loading--FEM and experiment, *Key Engineering Materials (Switzerland)*, Vol. 233-236, pp 731 736.
- 23 Wang Bin, Shu D.W., 2002, Experimental investigation on the viscoelastic properties of porous metals., *Journal of Materials Processing Technology (Netherlands)*, Vol. 125, pp 144 149.
- 22 Wang B, Zheng J, <u>Shu D.W.</u>, 2002, stress and strain rate sensitivity of 37wt%Pb 63wt%Sn Eutectic solders., *Key Engineering Materials (Switzerland)*, Vol. 233-236, pp 181 186.
- <u>21 Shu D.W.</u>, Deng J.B., Zhao Y., 2001, Investigation of pressure in pipe subjected to axialymmetric pulse loading., *International Journal of Impact Engineering (United States)*, Vol. 25, No. 6, pp 523 536.

- 20 Shu D.W., Goh Joo Heng, 2001, Modelling of Young's Modulus of Foams, *Plastics, Rubber and Composites Processing and Applications (United Kingdom)*, Vol. 30, No. 10, pp 461 467.
- 19 Shen WeiQin, <u>Shu D.W.</u>, 2001, A Theoretical Analysis on the Failure of Unpressurised and pressurised Pipelines., *Journal of Process Mechanical Engineering (United Kingdom)*, Vol. 216, No. E, pp 151 165.
- 18 Chen H F, <u>Shu D.W.</u>, 2001, Simplified limit analysis of pipelines with multi-defects, *Engineering Structures (United Kingdom)*, Vol. 23, No. 2, pp 207 213.
- 17 Chen H F, <u>Shu D.W.</u>, 2000, The effects of the distance between two defects on the load carrying capacity of pressure vessel, *ASME Journal of pressure vessel technology (United States)*, Vol. 122, No. 2, pp 198 203.
- <u>16 Shu D.W.</u>, Chen Hao Feng, 2000, The Load Carrying Capacity of the Pressure Vessel with Two Defects along Axial Direction, *Key Engineering Materials (Switzerland)*, Vol. 177-180, No. 1, pp 757 762.
- 15 Chen H F, <u>Shu D.W.</u>, 2000, Lower and Upper Bound Limit Analyses for Pipeline with Multislots of Various Configurations, *International Journal of Pressure Vessels and Piping (United Kingdom)*, Vol. 77, No. 1, pp 17 25.
- 14 Chen H F, <u>Shu D.W.</u>, 1999, A numerical method for lower bound limit analysis of 3-D structures with multi-loading systems, *International Journal of Pressure Vessels and Piping (United Kingdom)*, Vol. 76, No. 2, pp 105 112.
- 13 Shu D.W., 1998, Buckling of multiple delaminated beams, *International Journal of Solids and Structures (United States)*, Vol. 35, No. 13, pp 1451 1465.
- 12 Shu D.W., Fan H., 1996, Free Vibraion of Bimaterial Split Beam, *Composites: part B (United Kingdom)*, Vol. 27B, No. 1, pp 79 84.
- 11 Shu D.W., Mai Y.W., 1995, Buckling of grooved beams, *Zeitschrift fuer Anrewandte Mathematik und Mechanik (Germany)*, Vol. 75, No. 2, pp 159 162.
- 10. Shu D.W., 1995, Vibration of sandwich beams with double delaminations, *Composites Science and Technology (United Kingdom)*, Vol. 54, No. 1, pp 101 109.
- <u>9. Shu D.W.</u>, Bjorklund NK, Brodland GW, Gordon R, Luchka KB, Matuga C, Martin CC, Scott MJ, 1994, Furrowing surface contraction wave coincident with primary neural induction in amphibian embryos, *Journal of Morphology (United States)*, Vol. 219, pp 131 142.
- 8. Shu D.W., Mai Y.W., 1993, Delamination buckling with bridging, *Composites Science and Technology (United Kingdom)*, Vol. 47, pp 25 34.
- 7. Shu D.W., Mai Y.W., 1993, Buckling of delaminated composites re-examined, *Composites Science and Technology (United Kingdom)*, Vol. 47, pp 35 41.
- <u>6. Shu D.W.</u>, Mai Y.W., 1993, Effect of stitching on interlaminar delamination extension in laminate composites, *Composites Science and Technology (United Kingdom)*, Vol. 49, pp 165 171.
- <u>5. Shu D.W.</u>, Stronge WJ, Yu TX, 1992, Oblique impact at the tip of a cantilever, *International Journal of Impact Engineering (United States)*, Vol. 12, No. 1, pp 37 47.

- <u>4. Shu D.W.</u>, Hetherington JG, 1992, An investigation into the energy absorbed during ballistic perforation of composite armours: discussion, *International Journal of Impact Engineering (United States)*, Vol. 12, No. 2, pp 325 327.
- 3. Shu D.W., Shim VPW, Stronge WJ, 1990, Dynamic modes of plastic deformations for curved structures, *International Journal of Impact Engineering (United States)*, Vol. 8, No. 1, pp 1 18.
- <u>2. Shu D.W.</u>, Yu TX, 1989, The energy-absorbing capacity of squire tubes under high-speed impact, (in Chinese), *YingYongLiXueXueBao* (*Chinese Journal of Applied Mechanics*) (*China*), Vol. 6, No. 1, pp 78 84.
- 1. Shu D.W., Stronge WJ, 1988, The domino effect: successive destabilization by cooperative neighbors, *Proceedings of the Royal Society (United Kingdom)*, Vol. A 418, pp 155 163.

Conference

- 27. Zhang Y.M., Li H.Q., <u>Shu D.W.</u>, Shi Baojun, 2007, Nonlinear Head-Disk Interface Modeling for Hard Disk Drives with Ultra-Low Flying Heights., *Asia-Pacific Magnetic Recording Conference* 2006 (*APMRC2006*), *Nov 2006 Singapore*, Singapore, pp BR09-01-02.
- <u>26. Shu D.W.</u>, Zhou W., Ma, G.W., 2007, Tensile Mechanical Properties of AM50A Alloy by Hopkinson Bar, *The 8th Asia-Pasific Symposium on Engineering Plasticity and Its Applications*, Japan, pp 247 254.
- <u>25. Shu D.W.</u>, Zhou W., 2007, Mechanical Properties of Compressive Hopkinson bar, *The 6th International Conference on Materials Processing for Properties and Performance (MP3*), Singapore, pp 150 154.
- 24. Shi B J, Shu D.W., Luo J, Ng Q Y, Lau J H T, 2006, Experimental and Numerical Analyses of the Head Arm Assembly of a Micro-drive, *The International Conference on Experimental Mechanics* 2006, South Korea, pp 1585 1588.
- 23. Shu D.W., Zhou W., Ma, G.W., 2006, Tensile Mechanical Properties of AM50A Alloy by Hopkinson Bar, *the 8th Asia-Pacific Symposium on Engineering Plasticity and Its Applications (AEPA2006)*, Japan. (Accepted for presentation.)
- 22. Shi Baojun, <u>Shu D.W.</u>, Luo J, Ng Q.Y., Sam G., 2006, Op-Shock Simulation of the Head Disk Assembly of a Small-Form Factor Drive., *Asia-Pacific Magnetic Recording Conference 2006 (APMRC2006), Nov 2006, Singapore*, Singapore, pp BR-08-01-0.
- 21 Gu B., <u>Shu D.W.</u>, Luo J., Shi B. J., 2006, FEA Simulation of Linear and Rotary Drop Test for Small Form Factor HDD, *IEEE ICMA2006: IEEE International Conference on Mechatronics and Automation June 25-28, 2006 in Luoyang*, China, pp 1264 1268.
- 20. M Parlapalli, <u>Shu D.W.</u>, Chai G.B., 2006, Analytical and Numerical Analysis of Delamination Buckling in Layer Beams, *ICMAT 2005 Sym S: Science and Technology of Hybrid Materials*, Singapore, pp 75 78.
- 19. Shi, B.J, Wang Shao, Shu D.W., Luo, J, Meng, H., Ng, Q. Y., Zambri, R., 2004, Power spectrum analysis of the excitation pulse effects in drop test simulation of hard disk drives., *Asia-Pacific Magnetic Recording Conference 2004, Seoul, Korea, Aug.16-19*, South Korea.
- 18. Parlapalli MSRao, Tu wenge, <u>Shu D.W.</u>, 2004, Buckling analysis of tri-layer beams with enveloped delaminations., *International Conference on Precision Engineering, 2nd -5th March 2004, Singapore*., Singapore.

- <u>17. Shu D.W.</u>, 2003, A tube under transverse loading--FEM and experiment., *The Sixth Asia-Pacific Symposium on Advances in Engineering Plasticity. Sydney University 2002 Dec Sydney.*, Australia.
- 16. Shu D.W., 2003, A tube under transverse loading--FEM and experiment., *The Sixth Asia-Pacific Symposium on Advances in Engineering Plasticity. Sydney*, Australia.
- 15. Shu D.W., J. H. Goh, 2001, Modelling of Young's Modulus of Foams, *ICMAT2001*, *International Conference on Materials for Advanced Technologies*. 1-6 July 2001, Singapore Symposium K: Advances in Polymers and Composites, Singapore.
- 14. Shu D.W., Chen H. F., 2001, The load carrying capacity of the pressure vessel with two defects along axial direction, *The Fifth Asia-Pacific Symposium on Advances in Engineering Plasticity. HKUST 2000 Dec HongKong.*, Singapore.
- 13. Shu D.W., Goh J H, 2001, Modelling of Young's Modulus of Foams., *International Conference on Materials for Advanced Technologies. ICMAT2001*, Singapore, pp Symposiu K.
- 12. Shu D.W., Deng JianBo, 2000, Liquid pipelines under ground shocks, *Asia-Pacific Vibration Conference*. *Singapore*, *Dec* 13 -15, 1999, Singapore.
- 11. Shu D.W., Lim Boon Buan, 2000, FEM Simulation of Energy Absorbing Devices (EAD), Asia-Pacific Vibration Conference. Singapore Dec 13-15, 1999, Singapore.
- 10. Ma Jan, Mun M W, Shu D.W., Tan E B G, 2000, Development and characterization of Ti/TiB2 functionally gradient materials, *NUS/NTU/MINDEF joint seminar*, DD Country not found..
- <u>9. Shu D.W.</u>, Fern MJ, Chou S.M., 1999, Response of Laminated composites to blast Loading, *International Symposium on Impact Engineering'98*, Singapore.
- <u>8. Shu D.W.</u>, Chen H.F, 1999, Obtaining both Upper and Lower Bounds of 3-D Structures using FEM., *9th Mindef-NTU Joint R&D Seminar. January 18, 1999. NTU*, Singapore.
- 7. Deng J.B, <u>Shu D.W.</u>, 1999, Fuelpipes under ground shock, *Workshop on Energy Absorption of Materials and Structures*, Hong Kong SAR.
- <u>6. Chou S.M.</u>, Shu D.W., Meng LY, 1999, Numerical Solution for Simply Supported Composite Plate Under Blast Loading, *9th Mindef-NTU Joint R&D Seminar*, Singapore, pp 154 159.
- 5. Chen H.F., <u>Shu D.W.</u>, 1999, Obtaining both Upper and Lower Bounds of 3-D Structures using FEM., *9th Mindef-NTU Joint R&D Seminar. Singapore*, Singapore.
- <u>4. Shu D.W.</u>, 1996, Vibrations of beams with multiple delaminations, *Mechanics in Design. Toronto*, Canada, pp 239 246.
- 3. Shu D.W., 1994, Vibraion of bimaterial delamination beams, *ICCE1 First Int. Conf. Composite Engng*, United States, pp 126 132.
- 2. Shu D.W., Mai Y.W., 1992, Delaminated Composites with Bridging, *The 2nd Int. Symposium on Composite Materials and Structures*, China, pp 88 95.
- <u>1. Shu D.W.</u>, Stronge WJ, 1989, Dynamic coupling of plastic deformations in multicomponent structures, *The 4th Int. Conf. on Mechanical Properties of Materials at High Rates of Strain*, United Kingdom, pp 153 159.

Chapter in book

<u>Shu D.W.</u>, Brodland GW, 1992, *Are intercellular membrane forces important to amphibian neurulation?*, Dynamic Phenomena at Interfaces, Surfaces and Membranes, Nova Science Publishers, Inc., New York, U.S.A.