

**Department of Mechanical Engineering
University of New Brunswick
P.O. Box 4400
Fredericton, N.B.
E3B 5A3 Canada**

**Research Activity Report
July 1, 2003 and June 30, 2005**

Our research activities for 2003-2005 has continued to flourish. Over the past two years, the number of graduate students increased by 47% , the number of conference presentations is up by 61%, and the number of papers published in journals and conference proceedings is higher by 21%. We also continued to attract a healthy amount of research funding that involved almost every full-time faculty member, in addition to our two professors emeriti. The almost doubling of the number of invited lectures over the past two years is a reflection of our national and international recognition. These improvements are indicative of strong research momentum and a healthy research culture.

**Mechanical Engineering Esam Hussein, PhD, PEng
Professor and Chair**

Graduate Students

Supervisor: Dr. Edmund Norman Biden

Name	Level
Chester, Victoria Louise	Ph.D.
MacPhee, Benjamin	Masters Research Based
Mitchell, Michael	Masters Research Based
Pick, Jennifer Dawn	Masters Research Based
Ross, Martha Patricia	Masters Research Based
Zinck, Arthur	Masters Research Based

Supervisor: Dr. Dav J. Bonham

Name	Level
Rodriguez Balbuena, Jose Maria	Ph.D.
Newaskar, Rohit	Masters Research Based

Supervisor: Dr. Juan A. Carretero

Name	Level
Ebrahimi Moghaddam, Iman	Ph.D.
Pond, Geoffrey Tobin	Ph.D.
Salah, Souraj	Ph.D.
Odukoya, Adedoyin	Masters Research Based
Uppuluri, Raja	Masters Research Based
Van Driel, Christopher	Masters Research Based

Supervisor: Dr. Zengtao Chen

Name	Level
Li, Zhenning	Masters Research Based

Xia, Weijie	Masters Research Based
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Supervisor: Dr. Huw Davies

	Name		Level
g096n	Dorjee, Lam	3106850	Masters Research Based

Supervisor: Dr. Rickey Dubay

Name	Level
Abu-Ayyad, Ma'moun Abdel-Ra'ouf	Ph.D.
Elbakush, Emhemed	Ph.D.
Pramujati, Bambang	Ph.D.
Chinta Venkateswara Rao, Lakshminarayan	Masters Research Based
Han, Jianguo	Masters Research Based
Hernandez, Jose	Masters Research Based
Li, Chunying	Masters Research Based
Mani, Mahendran	Masters Research Based
Tian, Haifeng	Masters Research Based
Wang, Ruogu	Masters Research Based
Xia, Weijie	Masters Research Based
Zhang, Songtao	Masters Research Based

Ng, Chien Ee	Masters Research Based
Williams, Eric Michael	Masters Research Based

Supervisor: Dr. Marwan A Hassan

Name	Level
Mahmood, Faisal	Ph.D.
Omar, Hossin	Ph.D.
Bodhani, Prasad	Masters Research Based
Elsbaie, Bashir	Masters Research Based
Hayder, Mir Mohammad Abu	Masters Research Based
Kaware, Sagar	Masters Research Based
Li, Chunying	Masters Research Based
Wang, Ruogu	Masters Research Based
Williams, Eric Michael	Masters Research Based
Yan, Wei	Masters Research Based

Supervisor: Dr. Gordon Lawrence Holloway

Name	Level
Jeans, Tiger	Ph.D.
Owens, James	Ph.D.
Baker, Christopher	Masters Research Based
Bettle, Jason Robert	Masters Research Based
McLeod, Ian	Masters Research Based
Ng, Chien Ee	Masters Research Based
Richardson, Sean Dav	Masters Research Based

Supervisor: Dr. Esam M A Hussein

Name	Level
Arsenault, Paul Jacob	Ph.D.
Bowles, John	Masters Research Based
Handbury, John Casnerton	Masters Research Based
Khan, Muzibur Rahman	Masters Research Based
Thangavelu, Sivakumar	Masters Research Based
Xu, Xiang	Masters Research Based

Supervisor: Dr. Hossam Eldeen Kishawy

Name	Level
Elbakush, Emhemed	Ph.D.
Kannan, Sathish	Ph.D.
Salah, Souraj	Ph.D.
Desroches, Trevor	Masters Research Based
Haglund, Andrew John	Masters Research Based
Ibrahim, Khaled	Masters Research Based
Kaware, Sagar	Masters Research Based
Li, Leiming	Masters Research Based
Mani, Mahendran	Masters Research Based
Thakare, Swapnil	Masters Research Based
Zhang, Yuxiang	Masters Research Based
Zhu, Yaopeng	Masters Research Based

Haglund, Andrew John	Masters Research Based
Ibrahim, Khaled	Masters Research Based
Li, Leiming	Masters Research Based
Thakare, Swapnil	Masters Research Based
(with Dr. Trevor Bailey)	
Zhang, Yuxiang	Masters Research Based
Zhu, Yaopeng	Masters Research Based

Supervisor: Dr. Bale Viswanadha Reddy

Name	Level
Gnanapragasam, Nirmal	Ph.D.
Alaefour, Ibrahim	Masters Research Based
Chui, Kin	Masters Research Based
Elhebshi, Moftah	Masters Research Based
Law, Bradley	Masters Research Based
Mohamed, Khaled	Masters Research Based
Odukoya, Adedoyin	Masters Research Based
Xie, Qing	Masters Research Based

Supervisor: Dr. Robert J Rogers

Name	Level
Garland, Philip Parnell	Ph.D.
Laplante, Gabriel	Ph.D.
Dorjee, Lam	Masters Research Based
Haglund, Andrew John	Masters Research Based
Yan, Wei	Masters Research Based

Supervisor: Dr. Antonio C.M. Sousa

Name	Level
Ji, Sangbong	Ph.D.
Aghakhanlou, Amir	Masters Research Based

Supervisor: Dr. Pearl P. Sullivan

Name	Level
Laplante, Gabriel	Ph.D.
Rogers, Angela Dawn	Ph.D.
Zhang, Songtao	Masters Research Based

Supervisor: Dr. James Venart

Name	Level
Shi, Yan	Masters Research Based

Memberships in national or international grant, scholarly / fellowship selection**Dr. Edmund Norman Biden**

Committee Type	Committee Name	Committee Level	Term Start Month	Term Start Year	End Date	Term Ended Month	Term Ended Year
Grant Committee	HTX Grant Selection Committee	National	August	2004	completed	April	2005
Grant Committee	CHRP College of Reviewers	National	September	2004	completed	December	2004
Scholarly/Fellowship Selection Committee	Rhodes Scholarships for the Maritimes	International	September	2004	completed	December	2004

Dr. Juan A. Carretero

Committee Type	Committee Name	Committee Level	Term Start Month	Term Start Year	End Date	Term Ended Month	Term Ended Year
Grant Committee	Fonds québécois de la recherche sur la nature et les technologies, Fonds Nature et Technologies à Québec / CFI	National	March	2005	ongoing		

Dr. Huw Davies

Committee Type	Committee Name	Committee Level	Term Start Month	Term Start Year	End Date	Term Ended Month	Term Ended Year
Grant Committee	NSERC GSC 013, Appeals Consultant	National	May	2004	completed	June	2004

Dr. Esam M A Hussein

Committee Type	Committee Name	Committee Level	Term Start Month	Term Start Year	End Date	Term Ended Month	Term Ended Year
Grant Committee	CFI College of reviewers	National	January	2003	ongoing		

Dr. Antonio C.M. Sousa

Committee Type	Committee Name	Committee Level	Term Start Month	Term Start Year	End Date	Term Ended Month	Term Ended Year
Grant Committee	Selection Grant Committee (SGC-13), NSERC	National	August	2004	ongoing		

Dr. Pearl P. Sullivan

Committee Type	Committee Name	Committee Level	Term Start Month	Term Start Year	End Date	Term Ended Month	Term Ended Year
Grant Committee	NSERC University Faculty Awards Selection Committee	National	July	2003	ongoing		

Dr. Ilan Yaar

Committee Type	Committee Name	Committee Level	Term Start Month	Term Start Year	End Date	Term Ended Month	Term Ended Year
Grant Committee	canada custom	National	January	2004	completed	March	2005

Adjudications of research grants or proposals for external granting agencies**Dr. Edmund Norman Biden**

Adjudication Type	Agency Name	Term	Year
Research Grant Adjudication	NSERC	Fall	2004
Research Grant Adjudication	NSERC	Fall	2003
Research Grant Adjudication	Hospital for Sick Children F'dn	Fall	2004

Dr. Juan A. Carretero

Adjudication Type	Agency Name	Term	Year
Proposal Adjudication	NSERC Discovery Grant	Fall	2004
Proposal Adjudication	Fonds Nature et Technologies à Québec / Canadian Foundation of Innovation	Fall	2005

Dr. Andrew Gustav Gerber

Adjudication Type	Agency Name	Term	Year
Research Grant Adjudication	NSERC	Summer	2003
Proposal Adjudication	NSERC Collaborative Research and Development	Summer	2004

Dr. Gordon Lawrence Holloway

Adjudication Type	Agency Name	Term	Year
Proposal Adjudication	NSERC	Winter	2004

Dr. Esam M A Hussein

Adjudication Type	Agency Name	Term	Year
Proposal Adjudication	The King Fahd University of Petroleum and Minerals	Spring	2005
Proposal Adjudication	Department of National Deference (CRTI)	Winter	2005
Proposal Adjudication	Department of National Deference (CRTI)	Winter	2004
Proposal Adjudication	Department of National Deference (CRTI)	Winter	2003
Research Grant Adjudication	NSERC	Winter	2005
Research Grant Adjudication	NSERC	Fall	2004
Research Grant Adjudication	South Africa's National Research Foundation	Spring	2005

Dr. Robert J Rogers

Adjudication Type	Agency Name	Term	Year
Research Grant Adjudication	NSERC Individual Research	Fall	2004
Research Grant Adjudication	NSERC Individual Discovery	Spring	2005

Dr. Antonio C.M. Sousa

Adjudication Type	Agency Name	Term	Year
Research Grant Adjudication	Foundation for Science and Technology (Portugal)	Fall	2004
Research Grant Adjudication	Italian Ministry for Research and Technology	Fall	2003
Research Grant Adjudication	Italian Ministry for Research and Technology	Fall	2004
Research Grant Adjudication	NSERC (Individual)	Fall	2003
Research Grant Adjudication	NSERC (Strategic)	Fall	2004
Research Grant Adjudication	Italian Ministry for Research and Technology	Fall	2003
Research Grant Adjudication	Italian Ministry for Research and Technology	Fall	2004
Research Grant Adjudication	NSERC (Individual)	Fall	2003
Research Grant Adjudication	NSERC (Strategic)	Fall	2004

Dr. Pearl P. Sullivan

Adjudication Type	Agency Name	Term	Year
Research Grant Adjudication	NSERC Collaborative R & D Grant	Spring	2005

Dr. James Venart

Adjudication Type	Agency Name	Term	Year
Research Grant Adjudication	NSERC	Fall	2004

Dr. Ilan Yaar

Adjudication Type	Agency Name	Term	Year
Research Grant Adjudication	Israel Atomic Energy Commission	Summer	2004

Editorships and active memberships of editorial boards of national / international journals or periodicals

Dr. Gordon Lawrence Holloway

Position Held	Journal / Periodical Name	Start Month	Start Year	End Date	End Month	End Year
Consulting Editor for Fluid Mechanics to McGraw-Hill	2005 Yearbook of Science and Technology	July	2003	ongoing		

Dr. Esam M A Hussein

Position Held	Journal / Periodical Name	Start Month	Start Year	End Date	End Month	End Year
Guest Editor: Special issue on landmine detection	Applied Radiation and Isotopes	July	2004	completed	July	2004

Dr. Antonio C.M. Sousa

Position Held	Journal / Periodical Name	Start Month	Start Year	End Date	End Month	End Year
Associate Editor	International Journal of Fluid Dynamics	September	2004	ongoing		
Associate Editor	Journal of Phase Equilibria and Diffusion	December	2004	ongoing		

Dr. Pearl P. Sullivan

Position Held	Journal / Periodical Name	Start Month	Start Year	End Date	End Month	End Year
International Editorial Board	Key Engineering Materials	May	2004	ongoing		

Dr. James Venart

Position Held	Journal / Periodical Name	Start Month	Start Year	End Date	End Month	End Year
Editorial Board	IMechE-J Process Mechanical Engineering	January	2004	ongoing		

Referee for scholarly journals/publications, conference submissions or proceedings**Dr. Edmund Norman Biden**

Journal / Publication / Conference Name	Number of Papers Refereed
Clinical Orthopaedics	2
IEEE Biomedical Engg	1

Dr. Juan A. Carretero

Journal / Publication / Conference Name	Number of Papers Refereed
Transactions on Robotics and Automation	2
Systems, Man and Cybernetics part B	3
Transactions on Robotics	1

ASME Design Engineering Technical Conference	1
Mechanism and Machine Theory	1
Computational Kinematics	1
CSME Transactions	4
2004 CCToMM M3 Symposium	2
2005 CCToMM M3 symposium	6
Advanced Water Resources	1

Dr. Zengtao Chen

Journal / Publication / Conference Name	Number of Papers Refereed
International Journal of Solids and Structures	3
Fatigue and Fracture of Engineering Materials and Structures	1
Mechanics Research Communications	1

Dr. Rickey Dubay

Journal / Publication / Conference Name	Number of Papers Refereed
ISA Transactions: Journal of Science and Engineering of Measurement and Automation	4
Polymer Engineering and Science Journal	1
Proceedings of the ASME	1

Dr. Andrew Gustav Gerber

Journal / Publication / Conference Name	Number of Papers Refereed
Metallurgical and Materials Transactions B	1
Material Science and Engineering A	1

Dr. Marwan A Hassan

Journal / Publication / Conference Name	Number of Papers Refereed
Journal of Materials Processing Technology	1
International Journal of Adhesion & Adhesives	1
ASME PVP-Flow-Induced Vibration	4

Dr. Gordon Lawrence Holloway

Journal / Publication / Conference Name	Number of Papers Refereed
Journal of Wind Engineering and Industrial Aerodynamics	2
Journal of Fluid Mechanics	1

Dr. Esam M A Hussein

Journal / Publication / Conference Name	Number of Papers Refereed
International Journal of Multiphase Flow	1
Journal of Phase Equilibria and Diffusion	1
Applied Radiation and Isotopes	5
IEEE Transactions on Nuclear Science	1
Food Research International	1

Dr. Bale Viswanadha Reddy

Journal / Publication / Conference Name	Number of Papers Refereed
Chemical Engineering Science	1
CSME Journal	1
International Journal of Energy Research	1
Fuel Processing Technology	1
International Journal of Heat and Mass Transfer	1

Dr. Robert J Rogers

Journal / Publication / Conference Name	Number of Papers Refereed
Canadian Aeronautics and Space Journal	2
CSME Transactions	1
Journal of Materials Processing Technology	1
Journal of Tribology	1
Control Engineering Practice	1
IEEE Transactions on Robotics	1

Dr. Antonio C.M. Sousa

Journal / Publication / Conference Name	Number of Papers Refereed
Intal. J. Heat and Mass Transfer	1
Intal. J. Thermal Science	3
Heat Transfer Engineering	2
CIBEM6	10
Heat Transfer 2004, Advanced Computational Methods in Heat Transfer	8

Dr. Pearl P. Sullivan

Journal / Publication / Conference Name	Number of Papers Refereed
Journal of Applied Polymer Science	1
Canadian Composites, CANCOM 2005	19

Dr. James Venart

Journal / Publication / Conference Name	Number of Papers Refereed
12th Symposium on Laser Techniques	12
J Loss Prevention Process Industry	3

Dr. Edward Joseph Waller

Journal / Publication / Conference Name	Number of Papers Refereed
Acta Astronautica	3
IEEE NSREC conference	12

Dr. Ilan Yaar

Journal / Publication / Conference Name	Number of Papers Refereed
hyperfine interaction	2

Conferences, symposia, etc. chaired or member of organizing or program committee

Dr. Robert J Rogers

Name of Conference / Symposia	Level	Conference Date Month	Conference Date Year	Position
21st Canadian Machinery Vibration Seminar, Halifax, NS	National	October	2003	program

Invitations accepted to chair, organize or comment on a session at a conference or symposium 2005

Dr. Juan A. Carretero

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
CCToMM Symposium on	May	2005	National	Session 6: Design	chaired

Mechanisms, Machines, and Mechatronics				in State-of-the-art Technology	
2004 RoManSy: 15th CISM-IFTToMM Symposium on Robot Design, Dynamics and Control	June	2004	International	Session 8: Design Issues	chaired
2004 CSME Forum / 2004 CCToMM Symposium on Mechanisms, Machines, and Mechatronics	June	2004	National	CCToMM V	chaired

Dr. Huw Davies

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
Institute of Math and its Applications Conference on Dynamic Systems, Southampton, UK	July	2003	International	Session 10	chaired
Institute of Math and its Applications Conference on Dynamic Systems, Southampton, UK	July	2003	International	Student Prize Presentations	chaired
IASTED Conference MIC 2004, Grindlewald, Switzerland	February	2004	International	Session 6	chaired

Dr. Rickey Dubay

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
Flexible Automation & Intelligent Manufacturing Conference	July	2004	International	A7: RFA-4: Controls	chaired

Dr. Marwan A Hassan

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
ASME Pressure Vessel and Piping Division	July	2003	International	1	chaired

Dr. Esam M A Hussein

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
6th Int. Topical Meeting on Industrial Radiation and Radioisotope Measurements Applications	June	2005	International	Member, Technical Program Committee	organized
First National Conference on Scientific Research Development in Egypt	May	2005	National	Peaceful Applications of Nuclear Technology and Renewable Energy	commented
First National Conference on Scientific Research Development in Egypt	May	2005	National	Space Program and Research	commented
6th Int. Topical Meeting on Industrial Radiation and Radioisotope Measurements Applications	June	2005	International	Biomedical III	chaired

Dr. Bale Viswanadha Reddy

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
CANCAM05, Montreal	June	2005	National	Fluid Flow and Heat Transfer, Session 3	chaired
The 1st International Green Energy Conference	June	2005	International	Exergy Analysis	chaired

Dr. Robert J Rogers

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
Twenty-first Machinery Vibration Seminar	October	2003	National	Session 3B (Short Course) - Stress Waves for Condition Monitoring of Industrial Machinery	chaired
Twenty-second Machinery Vibration Seminar	October	2004	National	Session 2A - Machinery Fault Diagnosis I	chaired

Dr. Antonio C.M. Sousa

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
Eighth International Conference on Advanced Computational Methods in Heat Transfer	March	2004	International	Session 4, Heat and mass transfer	chaired
Eighth International Conference on Advanced Computational Methods in Heat Transfer	March	2003	International	Session 3, Casting, welding, forging and other processes	commented
CIBEM6	October	2003	International	Fluid Mechanics V Session, VI Iberian	chaired

				American Congress of Mechanical Engineering	
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Dr. Pearl P. Sullivan

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
CANCOM 2003, The Third Canadian International Composites Conference	August	2003	International	Material Properties/Characterization	organized

Dr. James Venart

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
4th International Seminar on Fire and Explosion Hazards	October	2003	International	Session Mon 1.2: Large-scale fires and explosions	chaired
2004 INTERNATIONAL SYMPOSIUM ON SAFETY SCIENCE AND TECHNOLOGY	October	2004	International	Fires	chaired
2004 INTERNATIONAL SYMPOSIUM ON SAFETY SCIENCE AND TECHNOLOGY	October	2004	International	Explosions	chaired
2004 INTERNATIONAL SYMPOSIUM ON SAFETY SCIENCE AND TECHNOLOGY	October	2004	International	BLEVEs	chaired

Dr. Ilan Yaar

Conference / Symposium	Conference Date Month	Conference Date Year	Level	Session Title	Role
HFI13 BONN GERMANY	August	2004	International	The XIII International Conference on Hyperfine Interactions	commented
CONFRONTING TERRORISM - Los Alamos 2005	January	2005	International	SESSION 9: SCIENCE AND TECHNOLOGY	commented

Papers or posters presented at conferences, symposia, congresses, colloquia, etc.

Dr. Edmund Norman Biden

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		Canadian Orthopaedic Assoc Annual Meeting	National	Winnipeg	October	2003	Non invasive Assessment of Total Knee Arthroplasty	Tom Barnhill
Conference		Ergonomics Society Annual Conference	International	University of Wales	August	2004	Analysing marker Gaps during work-related activities of daily living using an optometric system	Nancy Black
Conference		ISEK	International	Boston	June	2004	An index to quantify gait deviation	
Conference		Canadian Society of Biomechanics	National	Halifax	August	2004	The identification of clinically	

							relevant gait variables in children with hypotonia	
Conference		Association of Children's Prosthetics and Orthotics Clinics	International	Orlando	March	2005	Gross motor activities of daily living as a means of assessing prosthetic function	

Dr. Juan A. Carretero

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Symposium		2005 CCToMM Symposium on Mechanisms, Machines and Mechatronics	National	Saint-Hubert, Quebec, Canada	May	2005	Sub-Object Pruning Algorithm: A Novel Pruning Strategy for Distance Determination in Complex Dynamic Environment	
Symposium		2005 CCToMM Symposium on Mechanisms, Machines and Mechatronics	National	Saint-Hubert, Quebec, Canada	May	2005	Calibration of the 3-PRS Parallel Manipulator Using a Motion Capture System	
Other	Forum	2004 CSME Forum	National	London, Ontario, Canada	June	2004	A Novel Optimization-Based Pruning Strategy for Concave Minimum Distance Problems	

Dr. Zengtao Chen

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		16th Canadian Materials Science Conference	National	Carleton University, Ottawa	June	2004	Void nucleation and damage percolation in aluminum sheet metal forming	Zengtao Chen, Michael Worswick, Stephen Corbin, Keith Pilkey and David Lloyd
Conference		SAE World Congress 2004	International	Detroit, Michigan, USA	March	2004	Multi-scale FE/damage percolation modelling of ductile damage evolution in aluminium sheet forming	Chen Z.T., Worswick M.J., Pilkey A.K. and Lloyd D.J.
Conference		SAE World Congress 2004	International	Detroit	March	2004	Numerical and experimental investigation of 5xxx aluminium alloy stretch flange forming	Chen Z.T., Worswick M.J., Pilkey A.K. and Lloyd D.J.

Dr. Huw Davies

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		Institute of Math and its Applications Conference on Chaotic Dynamics	International	Southampton, UK	July	2003	Bifurcations with parametric modulation and additive noise	
Conference		IASTED Conference on Modelling, Identification and Control	International	Grindlewald, Switzerland	February	2004	Modelling and simulation of some bifurcations of nonlinear systems with additive noise	
Conference		VIIth International Conference on Computational Structures Technology	International	Lisbon, Portugal	September	2004	Dynamic nonlinear buckling; slow modulation and noise	

Dr. Rickey Dubay

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		ANTEC	International	Boston, MA	May	2005	Cavity temperature control on an injection molding machine	
Conference		ANTEC	International	Boston,	May	2005	Injection	

				MA			velocity control in plastic injection molding	
Conference		ISA Conference	International	Houston, TX	April	2004	Injection velocity control in plastic injection molding	
Conference		Flexible Automation & Intelligent Manufacturing Conference	International	Toronto, ON	May	2004	Predictive Control of Flexible Structures	
Conference		Flexible Automation & Intelligent Manufacturing Conference	International	Toronto, ON	May	2004	Control of temperature incorporating shear in injection molding	

Dr. Marwan A Hassan

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		8th International Conference on Flow-Induced Vibrations	International	Ecole Polytechnique , Paris	July	2004	Friction Modelling of Preloaded Tube Contact Dynamics	
Conference		8th International Conference on Flow-Induced	International	Ecole Polytechnique, Paris	July	2004	Simulation of Fluidelastic Instability in Tube Bundles	

		Vibrations						
Conference		2004 International ANSYS Conference	International	Pennsylvania	July	2004	Simulation of Cross Flow Induced Vibration	
Conference		Flexible Automation and Intelligent Manufacturing	International	Toronto, ON	July	2004	Predictive Control of Flexible Structures	Wang, R.
Conference		IEEE Canadian Conference on Electrical and Computer Engineering	International	Niagara Falls, ON	July	2004	A Novel On-line Intelligent Shaft-Torsional Oscillation Monitor for Large Induction Motors and Synchronous Generators	
Symposium		ASME PVP-Flow-Induced Vibration	International	Cleveland, Ohio	July	2003	A New Tube/support Impact Model for Heat Exchanger Tubes in Loose Supports	Weaver, D.; Dokainish, M.
Conference		Canadian Congress of Applied Mechanics	National	Calgary, Alberta	July	2003	A Time Domain Simulation of Fluidelastic Instability	

Dr. Gordon Lawrence Holloway

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		ASME Fluids Engineering Division Summer Meeting and Exhibition, FEDS2005-77130 (Also presented at CANCAM 2005 in abstract form)	National	Houston, Texas	June	2005	Development of a Wing Tip Trailing Vortex Formed with Spanwise Tip Blowing	
Conference		ASME Fluids Engineering Division Summer Meeting and Exhibition, FEDS2005-77149 (Also presented at CANCAM 2005 in abstract form)	National	Houston, Texas	June	2005	Examination of the Flow Separation Characteristics Around a Streamlined Axisymmetric Shape	
Conference		ASME Fluids Engineering Division Summer Meeting and Exhibition (Also presented at CANCAM 2005 in abstract form)	National	Houston, Texas	June	2005	A Critical Review of Classical Force Estimation Methods for Streamlined Underwater Vehicles Using Experimental and CFD Data	
Conference		CANCAM 2005	National	Montreal, Quebec	May	2005	An Isothermal Water Model of the Twin Belt Casting	

							Process	
Conference		ASME Fluids Engineering Division Summer Meeting and Exhibition, FEDS2005-77460	National	Houston, Texas	June	2005	Predicting Turbine Performance of High Specific Speed Pumps Using CFD	
Conference		Canadian Conference on Electrical and Computer Engineering	National	n/a	June	2005	Novel Methodology for Predicting Performance of Pump as Turbine for Small-Scale Hydro Electric Systems	

Dr. Esam M A Hussein

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		16th World International Conference on Nondestructive Testing	International	Montreal	August	2004	An in situ Radiographic System for Imaging Marine Sediment	
Conference		54th Annual Canadian Chemical Engineering Conference	National	Alberta, Calgary	October	2004	The Interaction of Dissolved Boron with Corrosion Products Deposited on Heated Surfaces in High Temperature Boiling Water	
Conference		6th Int. Topical Meeting on Industrial Radiation and Radioisotope Measurements Applications	International	Hamilton, ON	June	2005	On the intricacy of imaging with scattered diation (invited)	
Conference		6th Int. Topical Meeting on Industrial Radiation and Radioisotope Measurements Applications	International	Hamilton, ON	June	2005	A non-intrusive neutron device for in-situ detection of petroleum contamination in soil	
Conference		6th Int. Topical	International	Hamilton,	June	2005	Natural Beta	

		Meeting on Industrial Radiation and Radioisotope Measurements Applications		ON			Emission for Detecting Concealed Tobacco in Parcels	
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Dr. Hossam Eldeen Kishawy

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		Fifteenth International Conference on Composite Materials	International	Durban, South Africa	June	2005	Analytical Modeling of Cutting Tool Wear in Machining Metal Matrix Composites	Deiab, I.M.; Surappa, M.K.
Conference		2nd IIEC-2004	International	Riyadh, Kingdom of Saudi Arabia	December	2004	Machining of Titanium Alloy with Self-Propelled Rotary Tools	Maridort, J.; El-Wahab, A.I.; Becze, C.E.
Congress		ASME International Mechanical Engineering Congress and Exposition	International	Anaheim, California	November	2004	A Model for Orthogonal Machining of Metal Matrix Composite Using Finite Element Method	
Conference		MDP, ASME/CSME	International	Cairo, Egypt	January	2004	Characteristics of High Speed Machining of	El-Mounayari, H.; El-

							Difficult-to-Cut Materials with Self-Propelled Rotary Tools	Wahab, A.I.
Conference		NAMRC33, North American Manufacturing Research Conference	National	Columbia University, NY	May	2005	Modeling of Tool Flank Wear Progression During Orthogonal Machining of Metal Matrix Composites	Deiab, I.M.; Surappa, M.K.
Conference		NAMRC33, North American Manufacturing Research Conference	National	Columbia University, NY	May	2005	On Friction Modeling in Orthogonal Machining: An Arbitrary Lagrangian Eulerian Finite Element Model	

Dr. Bambang Pramujati

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		SPE ANTEC	International	Tennessee	May	2003	Process identification of barrel temperature control in injection	

							molding: a MIMO approach	
Conference		Can. Soc. of Chem. Eng. Conference	National	Hamilton, Ontario	October	2003	The application of intelligent sensing in model predictive control	
Conference		SPE ANTEC	International	Boston	May	2005	Cavity temperature control in injection molding machine	
Conference		SPE ANTEC	International	Boston	May	2005	Injection velocity control in plastic injection molding	
Other	International Workshop	International Workshop on Advanced Manufacturing Technologies	International	London Ontario	May	2005	Cavity temperature control in plastic injection molding	

Dr. Bale Viswanadha Reddy

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		18th International	International	Toronto	May	2005	Effect of dilute and dense	

		Conference on Fluidized Bed Combustion					phase conditions on bed-to-wall heat transfer mechanism in the riser column of a CFB combustor	
Congress		CANCAN05	National	Montreal	June	2005	Second law analysis of natural gas fired combined cycle power generation unit	
Conference		Combustion Canada03 Conference	International	Vancouver	September	2003	Heat transfer mechanism in a pressurized circulating fluidized bed combustor	
Conference		Combustion Canada03 Conference	International	Vancouver	September	2003	Effect of operating parameters on the performance of an IGCC unit	

Dr. Robert J Rogers

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Colloquia		21st Can.	National	Halifax,	October	2003	Analyzing Inherent	

		Machinery Vibration Association National Seminar		NS			Vibration Problems of a Vertical Hydroelectric Turbine Generator	
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Dr. Antonio C.M. Sousa

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		ASME - ZSIS International Thermal Science Seminar II	International	Bled, Slovenia	June	2004	Heat tranfer distribution for a free/porous system with forced convection and heat generation - numerical study	
Conference		12th Annual (International) Mechanical Engineering Conference	International	Tehran, Iran	March	2004	Modeling of the Suppression Water Mists - Revisited	
Conference		Eight International Conference on Advanced Computational Methods in Heat Transfer	International	Lisbon, Portugal	March	2004	Numerical evaluation of heat dissipation by non-Darcian forced convection in porous/fluid systems	Costa, V.A.F.; Oliveira, M.S.A.
Conference		VI Iberian- American Congress of Mechanical Engineering,	International	Coimbra, Portugal	October	2003	Numerical study of free convection in a cavity with a eries of	Costa, V.A.F.; Oliveira, M.S.A.

		CIBEM					thermally active partial partitions	
Conference		Fourth Baltic Heat Transfer Conference	International	Kaunas, Lithuania	August	2003	Numerical study of laminar free convection flows in a vertical stack of parallelogrammic partial enclosures, Advances in Heat Transfer Engineering	Costa, V.A.F.; Oliveira, M.S.A.
Conference		2003 ASME Summer Heat Transfer Conference	International	Las Vegas, Nevada	July	2003	Mixed laminar free convective flows in enclosures with arrays of partitions - a numerical study	Costa, V.A.F.; Oliveira, M.S.A.
Symposium		The First International Exergy, Energy and Environment Symposium	International	Izmir, Turkey	July	2003	Transient laminar convection induced by a line heat source	Ayani, M.B.; Esfahani, J.A.; Niazmanmd, H.

Dr. Pearl P. Sullivan

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		The Fourth Canadian-International Composites Conference	International	Ottawa, ON	August	2003	Effects of moisture on the stress relaxation of FM300® Film	

		(CANCOM 2003)					Adhesive	
Conference		The Fourth Canadian-International Composites Conference (CANCOM 2003)	International	Ottawa, ON	August	2003	Residual stress modelling in composite patch repairs employing a cure kinetics model with diffusion control	M. Hojjati; K. Cole; D. Djokic

Dr. Edward Joseph Waller

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Conference		6th Int. Topical Meeting on Industrial Radiation and Radioisotope Measurements Applications	International	Hamilton, ON	June	2005	A non-intrusive neutron device for in-situ detection of petroleum contamination in soil	

Dr. George Watt

Type	Other	Event	Level	Location	Event Month	Event Year	Title of Paper	Non-UNB Authors
Other	Workshop	Canada, US, UK, Australia Defence Science Workshop	International	Naval Surface Warfare Center, Carderock Div., Washington, DC	November	2004	Predicting High Incidence Sail and Hull Vorticity	

Other	Workshop	International Submarine Hydrodynamics Working Group Workshop	International	Perth, Australia	May	2005	RANS Modelling of High Incidence Submarine Flows	
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Publications of one or more chapters in books

Dr. Zengtao Chen

Pub. Year	Type	Book Title	Publisher	Place of Publication	Editor	Chp. Title	Chapter	Pagination	Other Contrib.
2004	Refereed	Scale Simulation of Engineering Materials	Wiley VCH Verlag	Berlin, Germany	Raabe D., Chen L-Q., Barlat F., Roters, F.	Damage Percolation Modeling in Aluminum Alloy Sheet	44	805-816	Worswick M.J., Chen Z.T., Pilkey A.K., and Lloyd D.J.

Publications of papers in journals or in conference proceedings

Dr. Edmund Norman Biden

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Gait Analysis	Biomedical Instrumentation and Technology	UK	January	2005	Vol 39 # 1	64-74	
Refereed Journal	Using Potential	Robotica	UK	May	2005	Vol 23 # 3	319-327	Nancy Black

	Energy to Measure Work Related Activities for persons Wearing Upper Limb Prostheses							
Referenced Conference Proceeding	Gross motor activities of daily living as a means of assessing prosthetic function.	ACPOC Annual Meeting Proceedings	Orlando	March	2005	2005	7-8	
Referenced Conference Proceeding	An index to quantify gait deviation	SEK Conference prodeedings	Boston	June	2004	15th	113	
Referenced Conference Proceeding	A Non-invasive Assessment of Total Knee Arthroplasty	Cdn Orthopaedic Assoc Proceedings	Winnipeg	October	2003	2003	73	

Dr. David J. Bonham

Type	Piece Title	Publication	Place of	Pub.	Pub.	Volume	Pagination	Other
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Referenced Conference Proceeding	Best Permutations for the Dynamic Plant Layout Problems	Proceedings of the 12th International Conference on Advances in Computing and Communications	New Delhi	December	2004	n/a	173-178	
Referenced Conference Proceeding	Solving the quadratic assignment and dynamic plant layout problems using a new hybrid meta-heuristic approach	Proceedings of the 18th Annual International Symposium on High Performance Computing Systems and Applications	n/a	May	2004	n/a	9-16	

Dr. Juan A. Carretero

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Referenced Conference Proceeding	Sub-Object Pruning Algorithm: A Novel Pruning Strategy for Distance Determination in Complex Dynamic Environment	Proceedings 2005 CCToMM Symposium on Mechanisms, Machines and Mechatronics	Quebec	May	2005	n/a	-	
Referenced Conference Proceeding	Dexterity Analysis of the Tricept Manipulator	Proceedings 2005 CCToMM Symposium on	Quebec	May	2005	n/a	-	

		Mechanisms, Machines and Mechatronics						
Referenced Conference Proceeding	Calibration of the 3-PRS Parallel Manipulator Using a Motion Capture System	Proceedings 2005 CCToMM Symposium on Mechanisms, Machines and Mechatronics	Quebec	May	2005	n/a	-	
Referenced Conference Proceeding	Simulation of Submerged Slack Tethers and their Interaction with the Environments	Proceedings of the 23rd ASME International Conference on Offshore Mechanics and Arctic Engineering	Vancouver, BC	June	2004	n/a	-	B.J. Buckham
Referenced Conference Proceeding	A Novel Optimization-Based Pruning Strategy for Concave Minimum Distance Problems	Proceedings of the 2004 CSME Forum	London, ON	June	2004	n/a	-	
Referenced Conference Proceeding	Singularity Analysis and Workspace Optimization of the Inclined PRS Manipulator	Proceedings of the 2004 CCToMM M3 Symposium	London, ON	June	2004	n/a	-	

Referenced Conference Proceeding	Kinematic Analysis and Workspace Determination of the Inclined PRS Parallel Manipulator	Proceedings of the 2004 RoManSy, 15th CISM-IFTOMM Symposium, 2004 CSME Forum	Montreal, Quebec	June	2004	n/a	-	
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Dr. Zengtao Chen

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	A linked FE-damage percolation model of aluminium alloy sheet forming	International Journal of Plasticity	Elsevier, US	December	2003	12/19	2099-2120	Chen Z.T., Worswick M.J., Cinotti N., Pilkey A.K., Lloyd D.
Referenced Conference Proceeding	Void nucleation strain and damage percolation in sheet metal forming	16th Canadian Materials Science Conference	Carleton University, Ottawa	June	2004	1	68	Chen Z.T., Worswick M.J., Corbin S.F., Pilkey A.K. and Lloyd D.J
Referenced Conference Proceeding	Multi-scale FE/damage percolation modelling of ductile damage evolution in	Materials Innovation and Advances in Coating Technology, SAE Special Publications	Detroit, Michigan, USA	March	2004	1851	2004-01-0724	Chen Z.T., Worswick M.J., Pilkey A.K. and Lloyd D.J.

	aluminium sheet forming							
Referenced Conference Proceeding	Numerical and Experimental Investigation of 5xxx Aluminum Alloy Stretch Flange Forming	Sheet/Hydro/Gas Forming Technology and Modelling, SAE Special Publications	Detroit, Michigan, USA	March	2004	1804	2004-01-1051	Chen Z.T., Worswick M.J., Pilkey A.K. and Lloyd D.J

Dr. Huw Davies

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Referenced Conference Proceeding	bifurcations with slow parametric variation controlled by noise	Advances in Stochastic Structural Dynamics	Hangzhou, China	August	2003	1	63-70	
Referenced Conference Proceeding	Bifurcations with parametric modulation and additive noise	Conference Proceedings	Southampton, UK	July	2003	1	22	
Referenced Conference Proceeding	Modelling and Simulation of some bifurcations of	Conference Proceedings	Grindlewald, Switzerland	February	2004	1	1-6	

	nonlinear systems with additive noise							
Referenced Conference Proceeding	Dynamic nonlinear buckling, slow modulation and noise	VIIth International Conference on Computational Structures Technology	Lisbon, Portugal	September	2004	7	1-8	
Refereed Journal	Slow sinusoidal modulation through bifurcations	Nonlinear Dynamics	The Netherlands	July	2004	36	217-228	

Dr. Rickey Dubay

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Online optimization of a Fuzzy-PID control of a thermal process	ISA Transactions	Journal of Science and Engineering of Measurement and Automation	Spring	2005	Vol. 44	305-314	Mansoor, S.; Kember, G.; Robertson, B.
Refereed Journal	Continuous Analysis of Move Suppressed and Shifted DMC	ISA Transactions	Journal of Science and Engineering of Measurement and Automation	Winter	2004	Vol. 44, 1	69-80	Kember, G.

Refereed Journal	Well-Conditioned Predictive Control	ISA Transactions	Journal of Science and Engineering of Measurement and Automation	Winter	2004	Vol. 43	23-32	Kember, G.
Refereed Journal	Temperature control of injection molding incorporating zone interactions and back pressure - Part I: Modeling and Simulation	Society of Plastic Engineers	Polymer Engineering and Science Journal	Fall	2004	Vol. 44, 12	2308-2317	
Refereed Journal	Temperature control of injection molding incorporating zone interactions and back pressure Part II: Controller Design, Simulation and Implementation	Society of Plastic Engineers	Polymer Engineering and Science Journal	Fall	2004	Vol. 44, 12	2318-2326	
Refereed Journal	A temperature dependent adaptive controller Part I: Controller methodology	Society of Plastic Engineers	Polmer Engineering and Science Journal	Fall	2004	Vol. 44, 10	1925-1933	

	and empirical testing							
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Dr. Andrew Gustav Gerber

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	A General Formula for the Evaluation of Thermodynamic and Aerodynamic Losses in Nucleating Steam Flow	Int. Journal of Heat and Mass Transfer	n/a	August	2003	Vol. 46, No. 17	3265-3278	M.J. Kermani
Refereed Journal	Numerical and Experimental Investigations of the Cavitating Behavior of an Inducer	Int. Journal of Rotating Machinery	n/a		2004	Vol. 10, No. 1	15-25	F. Bakir; T. Belamri; B. Hutchinson
Refereed Journal	Characteristics of Heat Transfer During Machining with Rotary Tools	Journal of Manufacturing Science and Engineering	n/a		2004	Vol. 126	404-407	H.A. Kishawy
Refereed Journal	Surface-Oriented Melt/Substrate Heat Transfer Model in Aluminum Strip Casting	Metallurgical and Materials Transactions B	n/a		2004	Vol. 35B	351-361	C. Ng; M. Gallerneault

Refereed Journal	A Pressure Based Eulerian-Eulerian Multiphase Model for Condensation in Transonic Steam Flows	Int. Journal of Heat and Mass Transfer	n/a		2004	Vol. 47	2217-2231	M.J. Kermani
Refereed Journal	Sediment Transport Equation for Air Flow Over Loose Boundaries	Int. Journal for Numerical Methods in Fluids	n/a		2004	Vol. 45	797-817	S. Ji; A.C.M. Sousa
Refereed Journal	Heat and Mass Transfer Predictions of the Early Contact of a Liquid Metal on an Intensely Cooled Moving Substrate	Int. Journal of Heat and Mass Transfer	n/a		2005	Vol. 48	2722-2734	
Referenced Conference Proceeding	A Critical Review of Classical Force Estimation Methods for Streamlined Underwater Vehicles Using Experimental and CFD Data	Proceedings of FEDSM2005 ASME	Houston	June	2005	n/a	77152	T.L. Jeans, C.R. Baker, A.G.L. Holloway, G.D. Watt

Referenced Conference Proceeding	Examination of Flow Characteristics Around a Streamlined Axisymmetric Shape	Proceedings of FEDSM2005 ASME	Houston	June	2005	n/a	77149	C.R. Baker, T.L. Jeans, A.G.L. Holloway, G.D. Watt
Referenced Conference Proceeding	A Two Phase Flow Model for Predicting Cavitation Dynamics	ICMF 2004 International Conference on Multiphase Flow	Yokohama, Japan	May	2004	n/a	111	P.J. Zwart, T. Belamri
Referenced Conference Proceeding	Predicting Turbine Performance of High Specific Speed Pumps Using CFD	Proceedings of FEDSM2005 ASME	Houston	June	2005	n/a	77460	J.D. White, A.G.L. Holloway

Dr. Marwan A Hassan

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	The Effects of Support Geometry on the Turbulence Response of a Loosely-supported Heat Exchanger Tube	Journal of Fluids and Structures	n/a	Winter	2003	Vol. 18	529-554	Weaver, D.; Dokainish
Referenced	Friction	8th	Ecole	July	2004	Vol. 1	295-300	

Conference Proceeding	Modelling of Preloaded Tube Contact Dynamics	International Conference on Flow-Induced Vibrations	Polytechnique, Paris					
Referenced Conference Proceeding	Simulation of Fluidelastic Instability in Tube Bundles	8th International Conference on Flow-Induced Vibrations	Ecole Polytechnique, Paris	July	2004	Vol. 1	271-276	
Referenced Conference Proceeding	Simulation of Cross Flow Induced Vibration	2004 International ANSYS Conference	Pennsylvania	Summer	2004	??	-	
Referenced Conference Proceeding	Predictive Control of Flexible Structures	Flexible Automation and Intelligent Manufacturing	Toronto, ON	September	2004	Vol. 1	98-104	
Referenced Conference Proceeding	A Novel On-line Intelligent Shaft-Torsional Oscillation Monitor for Large Induction Motors and Synchronous Generators	IEEE Canadian Conference on Electrical and Computer Engineering	Niagara Falls, ON	Summer	2004	n/a	-	Yin, B.
Referenced Conference Proceeding	Modelling of Tube/support Impact in Heat Exchanger	Current Advances in Mechanical Design and Production	n/a	Winter	2003	Vol. 1	505-512	Weaver, D.; Dokainish, M.

	Tubes in Loose Supports	VII						
Referenced Conference Proceeding	A New Tube/support Impact Model for Heat Exchanger Tubes in Loose Supports	ASME PVP-Flow-Induced Vibration	Cleveland, Ohio	Winter	2003	PVP-Vol. 465	107-115	Weaver, D.; Dokainish, M.

Dr. Gordon Lawrence Holloway

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Measurement of the combined effects of favourable pressure gradient and streamline curvature on sheared turbulence	Journal of Fluid Mechanics	n/a	Spring	2005	Vol. 526	303-336	H. Akbary
Refereed Journal	A Computational Study of the Aerodynamic Forces Acting on a Tractor Trailer Vehicle in Cross-Winds	Journal of Wind Engineering and Industrial Aerodynamics	n/a	Winter	2003	Vol. 91	573-592	
Referenced	Development	Proceedings of	Houston,	May	2005	n/a	-	

Conference Proceeding	of a Wing Tip Trailing Vortex Formed with Spanwise Tip Blowing	the ASME Fluids Engineering Division Summer Meeting and Exhibition	Texas					
Referenced Conference Proceeding	Examination of the Flow Separation Characteristics Around a Streamlined Axisymmetric Shape	Proceedings of the ASME Fluids Engineering Division Summer Meeting and Exhibition	Houston, Texas	June	2005	n/a	-	
Referenced Conference Proceeding	A Critical Review of Classical Force Estimation Methods for Streamlined Underwater Vehicles Using Experimental and CFD Data	Proceedings of the ASME Fluids Engineering Division Summer Meeting and Exhibition	Houston, Texas	June	2005	n/a	-	
Referenced Conference Proceeding	An Isothermal Water Model of the Twin Belt Casting Process	Proceedings of CANCAM 2005	Montreal, Quebec	June	2005	n/a	-	

Referenced Conference Proceeding	Predicting Turbine Performance of High Specific Speed Pumps Using CFD	Proceedings of the ASME Fluids Engineering Division Summer Meeting and Exhibition	Houston, Texas	June	2005	n/a	-	
Referenced Conference Proceeding	Novel Methodology for Predicting Performance of Pump as Turbine for Small-Scale Electric Systems	Proceedings of the Canadian Conference on Electrical and Computer Engineering	Saskatoon	June	2005	n/a	-	

Dr. Esam M A Hussein

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Detection And Localization Of Money Bills Concealed Behind Wooden Walls	Nuclear Technology	La Grange Park, Illinois	May	2005	150	196-202	
Refereed Journal	A Neutron Scatereometer for Void-fraction Measurement in Heated Rod-bundle Channels under CANDU LOCA	International Journal of Multiphase Flow	Exeter, UK	April	2005	31	452-471	Buell, J.R.; Byskal, D.P.; Ingham P.J.; Swartz R.S.

	Conditions							
Refereed Journal	On the use of radiation scattering for the detection of landmines	Radiation in Physics and Chemistry	Exeter, UK	May	2005	73	7-19	
Refereed Journal	Passive Detection of Concealed 90Sr Radioisotope Thermoelectric Generators in Transport	Packaging, Transport, Storage and Security of Radioactive Material	Ashford, Kent , UK	Spring	2004	15	149-154	
Refereed Journal	A Nonrotating Multiparameter 3-D X-ray Imaging System. Part I: Modeling and Reconstruction	IEEE Transaction on Nuclear Science	New York	June	2004	51	641-647	
Refereed Journal	A Nonrotating Multiparameter 3-D X-ray Imaging System. Part II: Design and Experiments	IEEE Transaction on Nuclear Science	New York	June	2004	51	648-658	
Refereed Journal	Use of Isotopic Gamma Sources for Identifying Anti-Personnel Landmines	Applied Radiation and Isotopes	Exeter, UK	July	2004	61	3-10	
Refereed Journal	A 3D X-Ray Scattering	Physics in Medicine and	Bristol, UK	October	2003	48	3445-3458	

	System for Multi-Parameter Imaging of the Human Head	Biology						
Refereed Journal	Application of nuclear techniques to anti-personnel landmines identification (Editorial)	Applied Radiation and Isotopes	Exeter, UK	July	2004	1/61	1-1	Csikai J.; Rosengard U.

Dr. Guy Kember

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Online optimization of a Fuzzy-PID control of a thermal process	ISA Transactions	Journal of Science and Engineering of Measurement and Automation	Spring	2005	Vol. 44	305-314	Roberton, B.
Refereed Journal	Continuous Analysis of Move Suppressed and Shifted DMC	ISA Transactions	Journal of Science and Engineering of Measurement and Automation	Winter	2004	Vol. 44, 1	69-80	
Refereed Journal	Well-Conditioned Predictive Control	ISA Transactions	Journal of Science and Engineering of Measurement	Winter	2004	Vol. 43	23-32	

			and Automation					
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Dr. Hossam Eldeen Kishawy

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Influence of Alumina Particles on the Mechanics of Metal Matrix Composites Machining	International Journal of Machine Tool and Manufacture	n/a	April	2005	Vol. 54,	389-398	
Refereed Journal	Effect of Coolant Strategy on Tool Performance, Chip Morphology and Surface Quality During High Speed Machining of A356 Aluminum Alloy	International Journal of Machine Tool and Manufacture	n/a	February	2005	Vol. 45, No. 2	219-227	Dumitrescu, M.; Ng, E-G.; Elbestawi, M.A.
Refereed Journal	An Energy Based Analytical Force Model for Orthogonal Cutting of Metal Matrix	Annals of the CIRP	n/a	July	2004	Vol. 53, No. 1	91-94	Balazinski, M.

	Composites							
Refereed Journal	Characteristics of Heat Transfer During Machining with Rotary Tools	Transactions of the ASME	Journal of Manufacturing Science and Engineering	May	2004	Vol. 126, No. 2	404-407	
Refereed Journal	Tool Performance and Attainable Surface Quality During the Machining of Aerospace Alloys using Self-Propelled Rotary Tools	Jounal of Materials Processing and Technology	n/a	Winter	2004	Vol. 152, No. 3	266-271	Becze, C.E.; McIntosh, D.G.
Referenced Conference Proceeding	Modeling of Tool Flank Wear Progression During Orthogonal Machining of Metal Matrix Composites	North American Manufacturing Research Conference	Transactions of the SME	May	2005	Vol. 33	605-612	Deiab, I.M.; Surappa, M.K.
Referenced Conference Proceeding	On Friction Modeling in Orthogonal Machining: An Arbitrary Lagrangian Eulerian Finite Element Model	North American Manufacturing Research Conference	Transactions of the SME	May	2005	Vol. 33	589-596	

Referenced Conference Proceeding	Machining of Titanium Alloy with Self-Propelled Rotary Tools	Proceedings of the 2nd IIEC-2004	Saudi Arabia	December	2004	n/a	0-0	
Referenced Conference Proceeding	A Model for Orthogonal Machining of Metal Matrix Composite Using Finite Element Method	Proceedings of IMECE 2004	California	November	2004	n/a	0-0	
Referenced Conference Proceeding	Characteristics of High Speed Machining of Difficult-to-Cut Materials with Self-Propelled Rotary Tools	Proceedings of the MDP, ASME/CSME	Cairo, Egypt	January	2004	n/a	0-0	El-Mounayari, H.; El-Wahab, A.

Dr. Bambang Pramujati

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Well-conditioned predictive control	ISA Transactions: Journal of Science and Engineering of Measurement and Automation	Melville, USA	January	2004	43	23	Dr. Guy Kember (Dalhousie Univ)

Referenced Conference Proceeding	Process identification of barrel temperature control in injection molding: a MIMO approach	SPE ANTEC Proceedings	Nashville, Tennessee	May	2003	61	1078	
Referenced Conference Proceeding	The application of intelligent sensing in model predictive control	Can. Soc. of Chem. Eng. Conf. Proceedings	Hamilton	October	2003	53	452	
Referenced Conference Proceeding	Cavity temperature control in injection molding machine	SPE ANTEC Proceedings	Boston	May	2005	63	1195	
Referenced Conference Proceeding	Injection velocity control in plastic injection molding	SPE ANTEC Proceedings	Boston	May	2005	63	1852	
Other	Cavity temperature control in plastic injection molding	Advanced Manufacturing Technologies proceedings	London Ontario	May	2005	5	157	

Referenced Conference Proceeding	Heat transfer mechanism in a pressurized circulating fluidized bed combustor	Combustion Canada'03 Conference Proceedings	Ottawa, Canada	September	2003	n/a	-	
Referenced Conference Proceeding	Effect of operating parameters on the performance of an integrated gasification combined cycle power generation unit	Combustion Canada'03 Conference Proceedings	Ottawa, Canada	September	2003	n/a	-	
Refereed Journal	Fundamental heat transfer mechanism between bed to membrane water-walls in circulating fluidized bed combustors	International Journal of Energy Research	John Wiley, UK	July	2003	Vol. 27	813-824	

Dr. Robert J Rogers

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Dynamic Modelling of Mechanical Systems with Opposing	Journal of Sound and Vibration	n/a	July	2004	Vol. 274, Issues 1-2	73-89	

	Preloaded Stiffnesses							
Referenced Conference Proceeding	Analyzing Inherent Vibration Problems of a Vertical Hydroelectric Turbine Generator	Proceedings of 21st Can. Machinery Vibration Association National Seminar	Halifax, NS	October	2003	n/a	11-1-11-12	
Referenced Conference Proceeding	Friction Models of Preloaded Tube Contact Dynamics	Flow Induced Vibration 2004	Ecole Polytechnique, Paris	July	2004	n/a	295-300	
Referenced Conference Proceeding	On Friction Modeling in Orthogonal Machining: An Arbitrary Lagrangian-Eulerian Finite Element Model	Thirty third Annual North American Manufacturing Research Conference, NAMRC33	Transactons of the North American Manufacturing Research Institution of SME, NAMRI	May	2005	n/a	589-596	

Dr. Antonio C.M. Sousa

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Laminar natural convection in a vertical stack of parallelogrammic partial enclosures with	Int. J. Heat Mass Transfer	n/a	Spring	2005	48	779-792	Costa, V.A.F.; Oliveira, M.S.A.

	variable geometry							
Refereed Journal	A convection-diffusion CFD model for aeolian particle transport	Int. J. Numer. Meth. Fluids	n/a	Winter	2004	45	797-817	
Refereed Journal	Simulation of coupled flows in adjacent porous and open domains using a control-volume finite element method	Numerical Heat Transfer, Part A	n/a	Winter	2004	45 (7)	675-697	Costa, V.A.F.; Oliveira, L.A.; Baliga, B.R.
Refereed Journal	Numerical simulation of non-Darcian flows through spaces partially filled with a porous medium	Computers & Structures	n/a	Fall	2004	82	1535-1541	Costa, V.A.F.; Oliveira, M.S.A.
Refereed Journal	Full-scale measurements for evaluation of coal dust release from train wagons with two different shelter covers	J. of Wind Engineering & Industrial Aerodynamics	n/a	Fall	2004	91	1271-1283	Ferreira, A.D.; Viegas, D.X.
Refereed Journal	Control of laminar natural convection in differentially heated square	Int. J. Heat Mass Transfer	n/a	Winter	2003	46(18)	3529-3537	Costa, V.A.F.; Oliveira, M.S.A.

Referenced Conference Proceeding	Numerical study of laminar free convection flows in a vertical stack of parallelogrammic partial enclosures, Advances in Heat Transfer Engineering	Proceedings of the Fourth Baltic Heat Transfer Conference	New York, NY	August	2003	n/a	309-316	Costa, V.A.F.; Oliveira, M.S.A.
Referenced Conference Proceeding	Mixed laminar free convection flows in enclosures with arrays of partitions - a numerical study	Proceedings of 2003 ASME Summer Heat Transfer Conference	The American Society of Mechanical Engineers	July	2003	Paper 47191	1-8	Costa, V.A.F.; Oliveira, M.S.A.
Referenced Conference Proceeding	Transient laminar convection induced by a line heat source	Proceedings of the First International Exergy, Energy and Environment Symposium IEEEES - 1	Ismir, Turkey	July	2003	n/a	155-160	Ayani, M.B.; Esfahani, J.A.; Niazmanmd, H.

Dr. Pearl P. Sullivan

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Distortion free single point imaging of multi-layered composite sandwich panel surfaces	Journal of Magnetic Resonance	Elsevier Science	Winter	2004	168	164-174	Marble, A.; Mastikin, I.V.; MacGregor, R.' Akl, R.
Refereed Journal	Moisture effects on FM 300 structural film adhesive: stress relaxation, fracture toughness and Dynamic Mechanical Analysis	Journal of Applied Polymer Science	John Wiley & Sons, New Jersey	Spring	2005	Vol. 95, No. 5	1285-1294	
Refereed Journal	Detection of Water Ingress in Composite Sandwich Structures: A Magnetic Resonance Approach	Non-Destructive Testing and Evaluation International	Elsevier Science	Spring	2005	38	501-507	A. Marble; B. MacMillan

Dr. James Venart

Referenced Conference Proceeding	The Flixborough explosion: a re-analysis	Proc. 4th Int. Symp. Fire and Explosion Hazards	Londonderry, UK	September	2003		-	Krasnov, V.M.; Drobzheva, Ya V.
Referenced Conference Proceeding	Fire and explosion in an automobile paint drying oven	Proc. Interflam2004 (10th Fire Science and Engineering Conference)	Edinburgh	July	2004		1171-1181	Moodie, K.
Referenced Conference Proceeding	A Re-analysis of the Atmospheric and Ionspheric Effects of the Flixborough Explosion	Proc. 11th Int. Symp. Loss Prevention and Safety Promotion in the Process Industries (CD Proc.)	Prague	May	2004		-	Krasnov, V.M.; Drobzheva, Ya V.; Lastovicka, J.
Referenced Conference Proceeding	Flixborough Explosion: case closed?	Progress in Safety Science and Technology	n/a	Winter	2004	Vol. IV, Part A	1083-1097	

Dr. Edward Joseph Waller								
Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	Detection and Localization of Money Bills Concealed Behind Wooden Walls using Compton Scattering	Nuclear Technology	World	M a y	2005	111	1	Esam Hussein
Refereed Journal	Neutron Production Associated with Radiotherapy Linear Accelerators using Intensity Modulated Radiation Therapy Mode	Health Physics	World	J u n e	2003	85	75-77	
Refereed Journal	On the use of radiation scattering for the detection of landmines	Radiation Physics and Chemistry	World	M a y	2005	111	1	Esam Hussein
Refereed Journal	Experimental and Computational Determination of Neutron Dose Equivalent around Radiotherapy Accelerator	Radiation Protection Dosimetry	World	J u n e	2003	107	225-232	
Refereed Journal	Effectiveness of Custom Neutron Shielding in the Maze of Radiotherapy Accelerators	Radiation Protection Dosimetry	World	J u n e	2003	107	233-238	
Refereed Journal	Detection And Localization Of Money Bills Concealed Behind Wooden Walls	Nuclear Technology	La Grange Park, Illinois	M a y	2005	150	196-202	
Refereed	On the use of	Radiation	Exeter, UK	M	2005	73	7-19	

Dr. George Watt

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Referenced Conference Proceeding	Critical Features of Flow Around An Axisymmetric Body	Conference Proceedings of the 20th Canadian Congress of Applied Mechanics (CANCAM)	Montreal, Quebec	May	2005	n/a	255-256	
Referenced Conference Proceeding	A Critical Review of Classical Force Estimation Methods for Streamlined Underwater Vehicles Using Experimental and CFD Data	Conference Proceeding of the 20th Canadian Congress of Applied Mechanics (CANCAM)	Montreal, Quebec	May	2005	n/a	1-2	

Dr. Ilan Yaar

Type	Piece Title	Publication Name	Place of Publication	Pub. Season	Pub. Year	Volume	Pagination	Other Contrib.
Refereed Journal	A 3D X-Ray Scattering System for Multi-Parameter Imaging of the Human Head	Medical Physics	usa	September	2003	48	3445-3458	
Refereed Journal	Passive Detection of Concealed 90	Packaging, Transport, Storage	ENGLAND	December	2004	15	149-154	

	Sr Radioisotope Thermoelectric Generators in Transport	and Security of Radioactive Material						
Refereed Journal	Passive Detection of Concealed 90Sr Radioisotope Thermoelectric Generators in Transport	Packaging, Transport, Storage and Security of Radioactive Material	Ashford, Kent , UK	Spring	2004	15	149-154	
Refereed Journal	A 3D X-Ray Scattering System for Multi-Parameter Imaging of the Human Head	Physics in Medicine and Biology	Bristol, UK	October	2003	48	3445-3458	

Books, etc.

Dr. Zengtao Chen

Title	Publisher	Place of Publication	Editor	Pub. Year	Volume	Pagination	Non-UNB Contributors
Ph.D. Thesis, The role of heterogeneous particle distribution on the prediction of ductile fracture	University of Waterloo	Waterloo, Ontario	Supervisors: Profs. Michael Worswick and Stephen Corbin	2004	1	1-241	Chen Z.T.

Dr. Esam M A Hussein

Title	Publisher	Place of Publication	Editor	Pub. Year	Volume	Pagination	Non-UNB Contributors
Handbook on Radiation Probing, Gauging and Imaging, Volume I: Basics and Techniques	Kluwer Academic Publishers	Dordrecht	None	2003	ISBN 1-4020-1294-2	1-464	
Handbook on Radiation Probing, Gauging and Imaging with Ionizing Radiation, Volume II: Applications and Design	Kluwer Academic Publishers	Dordrecht	None	2003	ISBN 1-4020-1295-0	1-526	

*Research reports resulting from university-administered research contracts***Dr. Edmund Norman Biden**

Title	Month	Year	Agency	Non-UNB Contributors
Biomedical Engineering Education in Cuba	April	2004	AUCC/CIDA	
Biomedical Engineering Education in Cuba	April	2005	AUCC/CIDA	
Crash Evaluation (Dickie Smith)	January	2004	Clark Drummie	
Crash Evaluation (Dunham)	January	2005	Clark Drummie	

Dr. Juan A. Carretero

Title	Month	Year	Agency	Non-UNB Contributors
On the automatic convex partition of concave objects	January	2003	MD Robotics	
Geometry Toolbox (Project report and manual submitted)	June	2005	MD Robotics	

Dr. Zengtao Chen

Title	Month	Year	Agency	Non-UNB Contributors
Microstructural heterogeneity and its effect on the ductile fracture in aluminum-magnesium sheet metal forming	April	2004	NBIF	

Dr. Rickey Dubay

Title	Month	Year	Agency	Non-UNB Contributors
NSERC/CRD - Plastic Injection Molding	May	2005	NSERC	Ropak Caanada Inc. Engel Canada Inc.

Dr. Esam M A Hussein

Title	Month	Year	Agency	Non-UNB Contributors
Feasibility of Detecting Heat Emission from Concealed Radioisotopic Sources using Thermal Screening	March	2005	Canada Border Services Agency Scientific Laboratory	Haim, M.
Passive Detection of Concealed 90Sr Radioisotope Sources	December	2003	Canada Customs and Revenue Agency Scientific Laboratory	

Dr. James Venart

Title	Month	Year	Agency	Non-UNB Contributors
BF5 Incident 08/11/01: Final Report HSLSC350	July	2004	Health and Safety Laboratory of the UK Health and Safety Executive	

Dr. Ilan Yaar

Title	Month	Year	Agency	Non-UNB Contributors
Passive detection of a concealed 90Sr radioisotope sources	December	2003	Canada customs and revenue	
Feasibility of detecting heat emission from concealed radioisotopic sources using thermal screening	March	2005	Canada customs and revenue	Mordechai Haim, BUG University

*Invited lectures***Dr. Juan A. Carretero**

Title	Venue	Month	Year
Simulation of Space Robotics Systems	Fredericton Space Society, UNB, Fredericton, NB	November	2004
Genetic algorithms and their use in the simulation of robotic systems	National University of Mexico (UNAM), Faculty of Engineering, Mexico City, Mexico	January	2003
Parallel manipulators and their applications	National University of Mexico (UNAM), Faculty of Engineering, Mexico City, Mexico	January	2003

Dr. Zengtao Chen

Title	Venue	Month	Year
Damage percolation in heterogeneous particle field of aluminum alloys	Natural Resources Canada/Ottawa	June	2004
Microstructural heterogeneity and its effect on formability of aluminum sheet	Defasco/Hamilton/Ontario	July	2003
Coupled FE/Damage Percolation Modelling of Sheet Forming	Lakehead University/Thunder Bay, Ontario	July	2003

Dr. Rickey Dubay

Title	Venue	Month	Year
Cavity temperature control in injection molding	Int. Workshop on Advanced Manufacturing Technologies (in collaboration with NRC)	January	2005
Model Predictive Control incorporating back pressure and zone interactions effects	Engel Canada Inc, Guelph, Ontario	June	2003

Dr. Esam M A Hussein

Title	Venue	Month	Year
Landmines: The Continuing Human Tragedy, a Technical Perspective	Adopt a Landmine Dinner, Fredericton	November	2004
Threat-Material Detection: Research at UNB	National Science and Technology Week, Fredericton	October	2004

Detection of Threat Materials	ADS-Expo 2003, New Opportunities for Aerospace, Defence & Security in Atlantic Canada	October	2003
Non-Power Applications of Nuclear Technology (Atoms for Peace)	Atomic Energy Authority, Cairo, Egypt	May	2005

Dr. Bale Viswanadha Reddy

Title	Venue	Month	Year
Advances in Energy Technologies and Waste Heat Recovery	OUCT, Hyderabad, India	August	2004
The Overview of Advanced Energy Systems and Energy Management	EE 6693, UNB	February	2005
Advances in Thermodynamics and Energy Systems	VEC, Guntur, India	June	2005
Advances in Energy Systems and Waste Heat Recovery	IICT, Hyderabad, India	August	2004
Recent Trends in Power Generation and Waste Heat Recovery	SRTIST, Nalgonda, India	September	2004
Cogeneration and Waste Heat Recovery	VIT, Vellore, India	September	2004
The Overview of Advanced Energy Systems and Energy Management	EE 6693, UNB	March	2004
A Small Vapor Compression HVAC Demonstration Unit: ASHRAE Funded Project	Wu Conference Centre, UNB	October	2003
Advances in Energy Systems and	VIT, Vellore, India	July	2003

Energy Management			
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Dr. Robert J Rogers

Title	Venue	Month	Year
Wear Concepts Related to Biodiesel Additives Workshop on Biodiesel in New Brunswick	New Brunswick Agricultural Research Station, Fredericton, NB	March	2004

Dr. Antonio C.M. Sousa

Title	Venue	Month	Year
Numerical evaluation of heat dissipation by non-Darcian forced convection in porous/fluid systems	Eight International Conference on Advanced Computational Methods in Heat Transfer	March	2004

Dr. Pearl P. Sullivan

Title	Venue	Month	Year
Advanced Materials in the Second Century of Flight - Higher Performance, Lower Costs	Atlantic Canada's Aerospace Defence & Security Conference, Fredericton NB	October	2003

Dr. Ilan Yaar

Title	Venue	Month	Year
TDPAC study of the intermetallic compound HfCo₃B₂	HFI13 Boon Germany	August	2004
whether and how terrorist groups may be pursuing radiological weapons and/or nuclear weapons capabilities	Confronting terrorism - conference held at Los Alamos	January	2005

Keynote addresses

Dr. Bale Viswanadha Reddy

Title	Venue	Month	Year
Role of energy technologies in sustainable development	VEC, Guntur, India	June	2005

Dr. Antonio C.M. Sousa

Title	Venue	Month	Year
Modeling of the Suppression Water Mists - Revisited	12th Annual (International) Mechanical Engineering Conference	May	2004

Dr. James Venart

Title	Venue	Month	Year
Flixborough Explosion: case closed?	Int. Symposium Safety Science and Technology, Shanghai, China	October	2004

*Internal and/or external doctoral theses examination committees***Dr. Edmund Norman Biden**

Venue	Location	Faculty/Department	Month	Year	Internal/External
UNB	Fredericton	Multi-disciplinary	Spring	2004	int

Dr. Juan A. Carretero

Venue	Location	Faculty/Department	Month	Year	Internal/External
University of New Brunswick	Fredericton, NB	Mechanical Engineering	Fall	2004	int

Dr. Rickey Dubay

Venue	Location	Faculty/Department	Month	Year	Internal/External
McGill	Quebec	Chemical Engineering	Summer	2004	ext
UNB	Fredericton	Civil	Fall	2003	ext
UNB	Fredericton	Electrical and Computer Engineering	Summer	2003	ext
UNB	Fredericton	Mechanical Engineering	Spring	2004	int

Dr. Marwan A Hassan

Venue	Location	Faculty/Department	Month	Year	Internal/External
New Brunswick	Fredericton, NB	Mechanical Engineering	Summer	2004	int

Dr. Hossam Eldeen Kishawy

Venue	Location	Faculty/Department	Month	Year	Internal/External
New Brunswick	Fredericton, NB	Civil Engineering	Summer	2005	int
New Brunswick	Fredericton, NB	Mechanical Engineering	Summer	2004	int

Dr. Bale Viswanadha Reddy

Venue	Location	Faculty/Department	Month	Year	Internal/External
University of New Brunswick	Fredericton, NB	Electrical and Computer Engineering	Fall	2003	int
University of New Brunswick	Fredericton, NB	Chemical Engineering	Winter	2003	int
National Institute of Technology	Warangal, India	Mechanical Engineering	Winter	2005	ext

Dr. Robert J Rogers

Venue	Location	Faculty/Department	Month	Year	Internal/External
University of New Brunswick	Fredericton, NB	Mechanical Engineering	Spring	2004	int
University of New Brunswick	Fredericton, NB	Mechanical Engineering	Fall	2003	int
University of New Brunswick	Fredericton, NB	Mechanical Engineering	Winter	2004	int

Dr. Antonio C.M. Sousa

Venue	Location	Faculty/Department	Month	Year	Internal/External
University of Coimbra	Portugal	Mechanical Engineering	Summer	2003	ext
University of Coimbra	Portugal	Mechanical Engineering	Summer	2004	ext
University of Coimbra	Portugal	Mechanical Engineering	Summer	2004	ext
University of Aveiro	Portugal	Mechanical Engineering	Summer	2003	ext
University of Coimbra	Portugal	Mechanical Engineering	Spring	2004	ext
University of Porto	Portugal	Chemical Engineering	Summer	2004	ext
University of Minho	Portugal	Mechanical Engineering	Summer	2004	ext
University of Aveiro	Portugal	Mechanical Engineering	Winter	2004	ext
University of Minho	Portugal	Mechanical Engineering	Spring	2005	ext

Dr. Pearl P. Sullivan

Venue	Location	Faculty/Department	Month	Year	Internal/External
University of New Brunswick	Fredericton, NB	Mechanical Engineering	Fall	2003	int
University of New Brunswick	Fredericton, NB	Chemical Engineering	Winter	2005	int

Dr. James Venart

Venue	Location	Faculty/Department	Month	Year	Internal/External
Univ College London	London UK	Chemical Engineering	Fall	2003	ext

*Accreditation committees served on***Dr. Zengtao Chen**

Name	Start Month	Start Year	Term	End Month	End Year
Chemistry sub-committee of the Engineering Education Task Force	September	2004	ongoing		
Committee working on establishing a nanotechnology Chair in Engineering	September	2004	ongoing		
Department curriculum-courses reorganization in applied mechanics	January	2005	ongoing		
Ph.D. comprehensive examination committee member /Solid mechanics/manufacturing engineering	January	2005	ongoing		

*Faculty member or departmental appraisals, external to UNB***Dr. Edmund Norman Biden**

Level	Venue	Location	Department	Month	Year
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Individual	UBC	Vancouver	Mech Engg	August	2004
Departmental	SFU	Burnaby	Biomedical Engg	January	2004

Dr. David J. Bonham

Level	Venue	Location	Department	Month	Year
Departmental	University of Ontario Institute of Technology	Oshawa, ON	Management Engineering	July	2003

Dr. Antonio C.M. Sousa

Level	Venue	Location	Department	Month	Year
Individual	University of Aveiro	Portugal	Mechanical Engineering	July	2003
Individual	University of Aveiro	Portugal	Mechanical Engineering	July	2003
Individual	University of Aveiro	Portugal	Mechanical Engineering	October	2003
Individual	University of Aveiro	Portugal	Mechanical Engineering	October	2003
Individual	Dalhousie University	Halifax, NS	Mechanical Engineering	November	2003
Individual	University of Aveiro	Portugal	Mechanical Engineering	February	2004
Individual	University of Coimbra	Portugal	Mechanical Engineering	February	2004
Individual	University of Aveiro	Portugal	Mechanical Engineering	March	2004
Individual	University of Aveiro	Portugal	Mechanical Engineering	May	2004
Individual	University of Coimbra	Portugal	Mechanical Engineering	February	2005

Dr. Pearl P. Sullivan

Level	Venue	Location	Department	Month	Year
Individual	Concordia University	Montreal	Mechanical Engineering	April	2005

Dr. James Venart

Level	Venue	Location	Department	Month	Year
Individual	Univ College London	London UK	Chemical Engineering	July	2003

Dr. Ilan Yaar

Level	Venue	Location	Department	Month	Year
Individual	Ben Gurion University of the Negev	Israel	Nuclear Engineering	January	2005

Executive or advisory positions held on regional, national or international boards, scholarly or professional organizations

Dr. Edmund Norman Biden

Organization	Level	Type	Position	Start Month	Start Year	Term	End Month	End Year
CIHR Institute of Musculo Skeletal Health and Arthritis	National	Advisory	Board Member	July	2003	ongoing		
CHSRF CADRE Steering Committee	National	Advisory	Committee Member	June	2005	ongoing		

Dr. Juan A. Carretero

Organization	Level	Type	Position	Start Month	Start Year	Term	End Month	End Year
Canadian Committee for the Theory of Machines and Mechanisms	National	Executive	Treasurer	May	2003	ongoing		

Dr. Antonio C.M. Sousa

Organization	Level	Type	Position	Start Month	Start Year	Term	End Month	End Year
Commission for the Parliamentary Inquiry to the Tragedy of Camarate	International	Advisory	Member (International Expert) Multidisciplinary Committee	May	2003	completed	December	2004
ADAI (Association for the Development of Industrial Aerodynamics)	International	Advisory	Member	July	2003	ongoing		

Publications of one or more book review essays or book reviews in journals published**Dr. Edward Joseph Waller**

Type	Title	Pub. Name	Pub. Place	Pub. Month	Pub. Year	Pub. No.	Pages
Book Review	Beyond Engineering: How Society Shapes Technology	Health Physics	World	June	2004	87	100

Additional information**Dr. Paul Jacob Arsenault**

Additional Information
P.J. Arsenault, E.M.A. Hussein, X-Ray Scatter Image Reconstruction by Balancing of Discrepancies Between Detector Responses, United States Patent & Trademark Office, Patent Pending, Aug. 27, 2004.

Dr. Trevor Bailey

Additional Information

Dr. Bailey is co-supervising a graduate student with Dr. Hossam Kishawy with a potential for future funding. The collaboration effort serves as an intersection point between Dr. Kishawy's research interests related to rotary tools and process optimization and Dr. Bailey's research interests related to milling process optimization and feed rate scheduling. This collaboration will serve as a focal point for several graduate thesis topics and will result in a number of publications in internationally recognized journals.

Dr. Edmund Norman Biden

Additional Information

Regular contributor of a literature review to the twice yearly "Standard" which is the newsletter for VICON-Peak the largest motion analysis system provider.

Have been a member of the NB Provincial Steering Committee on Post-Secondary Education which has played a key role in encouraging the RAI program through NBIF.

Dr. Juan A. Carretero

Additional Information

A total of over \$150,000 have been secured within the period for student support from different agencies and organizations.

Three (3) journal papers have been submitted within the period.

Collaborative projects have been started with researchers at the University of Victoria and the Université de Moncton.

Dr. Zengtao Chen

Additional Information

I started my research at UNB in August 2004. Everything has been going pretty well since then. I'm getting more graduate students with more funds from national and provincial funding agencies, such as NSERC, AUTO-21, NBIF. Also I had a very good start-up fund support from NBIF, the Department of Mechanical Engineering, and the University. This allows me to exploit more challenging areas in advanced manufacturing technology and micromechanics, which I'm currently interested in.

Dr. Marwan A Hassan

Additional Information

Involved in preparing the Mechatronics program that commenced in Winter 2005. Aided in preparing several applications for funding to establish an undergraduate Mechatronics laboratory. Set-up of laboratory modules for Mechatronics option.

Organizing and supervising ME2332 Trade Show based on student/client projects (open to public, attracts media attention, promotes department).

Dr. Esam M A Hussein

Additional Information

Teaching: Nuclear Theory and Reactor Physics, NB Power, Generals Training Program, 14-day course, July & Aug., 2003.

Patent: B. Achmad and E.M.A. Hussein, Density Measurement at a Point Within an Object, Canadian Intellectual Property Office, Patent No. 2,335,560 Nov. 18, 2003.

Teaching: Reactor and Auxiliaries NB Power, Generals Training Program, 14-day course, Aug. & Sept., 2003.

Consultant: Radiation Physics and Measurement, Canada Border Security Agency, Laboratory & Scientific Services Directorate, 2003-2005.

Consultancy Meeting: On Nuclear Methods for Humanitarian Demining, International Atomic Energy

Agency, Vienna, Dec. 2003.

Advisor: to the President of the Egyptian Academy of Scientific Research and Technology, on advancement of scientific research in Egypt, May 2005.

Best Paper Award -- student supervised research: Thangavelu, S., "Flaw Detection by Spatially Coded Backscatter Radiography", 29th Annual Student Conf., Canadian Nuclear Association, Toronto, Ontario, June 2005. Best Paper and Presentation Award in the Masters level category.

P.J. Arsenault, E.M.A. Hussein, X-Ray Scatter Image Reconstruction by Balancing of Discrepancies Between Detector Responses, United States Patent & Trademark Office, Patent Pending, Aug. 27, 2004.

Dr. Guy Kember

Additional Information

Dr. Guy Kember is a tenured Associate Professor in the Department of Engineering Mathematics at DalTech, Dalhousie University. He has been actively collaborating with Dr. Rickey Dubay on developing fuzzy-logic control algorithms and controller mathematical models for the plastic injection molding process. Dr. Kember is actively involved in Dr. Pramujati's research in Mechanical Engineering at UNB, related to developing a novel adaptive tuning scheme for some processes in injection molding. Future research involves developing multiple-input-output fuzzy-logic control algorithms for polymer melting, and other injection molding processes.

Dr. Hossam Eldeen Kishawy

Additional Information

New Manufacturing Horizons: High Speed Machining and Process Modeling, invited lecture presented at ADS-TEXPO, New Opportunities for Aerospace, Defense, and Security in Atlantic Canada, Fredericton NB, October 26-28, 2003.

Dr. Donald E Lyon

Additional Information

From roughly July 2002 through May 2004 I worked full time as the Executive Director of EUNB and did not perform ANY academic duties. I was then granted sabbatical leave for the purpose of considering leaving UNB and I was released from all academic requirements during the leave. From May thru November of 2004 I was involved in personal stress recovery and unable to work professionally (the VP Research and UNB's President are aware of the situation). From December till now I've been serving as CTO for UV Light Sciences Group (UVLSG), CTO for Trinity Geotech, and as a consultant to an investment group concerned with Hydrogen and other alternative fuel sources. During this time I've filed a number of patents through Smart and Biggar (which should be relevant to this questionnaire but I don't see a place to list). I've also supervised research for UVLSG through MotionFab and UdM. Through UVLSG, I am involved with negotiating master agreements with Penn State and Hershey Medical School and will be supervising research there relative to UV-based medical applications. I am currently involved with concluding another such agreement with McGill University for broad funded research work with the faculties of Medicine, Engineering, and Science on UV applications. Relative to engineering and sciences a dozen major projects are proposed for start-up this Fall. I am also involved with advanced fluoropolymer materials research and development with Solvay Solexis (8B Euro annual revenue) for UV transparent and reflective materials. In any case, I've been very involved with research and the commercialization of proprietary products which in turn will result in extensive research opportunities in the coming years. All of which are effective ways for engineering professors to use their sabbaticals.

Dr. Bale Viswanadha Reddy

Additional Information

NSERC USRA Students: 2005 1. Mark Bettle: He has received NSERC USRA and is working with me in the area of gas turbine cogeneration system.

Research Collaboration: Dalhousie University, Halifax, Carleton University, Ottawa: Area of collaboration: Experimental Investigations and Numerical Modeling of Circulating Fluidized Bed Combustors. JNTU College of Engineering, Hyderabad, India: Research collaboration in the area of Advanced Combined Cycle Power Generation and Second Law Analysis of Power Plant Units.

Research Advisor: I am one of the members of the research advisory committee of Vellore Institute of Technology, Vellore, India.

Invited Speaker, Short Course on Advances in Thermodynamics and Energy Systems, Organized by

Vignan's Engineering College, Guntur, India, June 24-25, 2005.

NSERC USRA Students: 2004 1. Brad Law: He received NSERC USRA and worked with me in the area of combined cycle cogeneration systems. 2. Cindy Samaan: She received NSERC USRA and worked with me in the area of steam based cogeneration systems.

Visiting Research Associate (Post Doctoral Fellow): 2004 Dr. A.V.S.S.K.S. Gupta from JNTU, Hyderabad, India visited UNB from May 5th to July 17th, 2004. We have research collaboration in the area of heat transfer and advanced energy systems.

Dr. Antonio C.M. Sousa

Additional Information

Chair, Steering Committee, TEMA R&D Unit, Aveiro, Portugal, 2001 - on.

Energy Expert, Portuguese Order of Engineers, 1990 - on.

Honorary Member, Italian Society for Thermo-fluid-dynamics, 2001 - on.

Fellow, Portuguese Order of Engineers, 2001 - on.

Collaboration on several projects (some of them international) with Dr. Almerindo Ferreira from the Univeristy of Coimbra, Portugal

Collaboration on several projects with Mr. Mohammad Ayani from the University of Ferdowsi, Iran as well as a co-supervisor of his PhD thesis.