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**CURRICULUM VITAE OF**

Prof. Dr. Mohammad Showkat Rahim Chowdhury

# Education

* **May 1997: Ph.D.** (Doctor of Philosophy), Dalhousie University, Canada.

Thesis Title: *Some Results on Quasi-Monotone and Pseudo-Monotone Operators and Applications*.

Thesis Supervisor: Professor Dr. Kok-Keong Tan, Canada.

* **June 1988: M. S.** (Master of Science in Pure Mathematics), King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia.

Thesis Title: *Upper Semicontinuous Decompositions of E3 into Subarcs of Bing’s Sling and Points*.

Thesis Supervisor: Professor Dr. Arlo W. Schurle, USA.

* **January 1985: M. Sc.** (officially, Master of Science of 1981 in Pure Mathematics), University of Dhaka, Dhaka - 1000, Bangladesh.

**Result: First Class 1st Position**

Thesis Title: *A Study of Some Fixed Point Theorems with Applications.*

* **April 1982: B. Sc. Honours** (officially, Bachelor of Science with hounours of 1980 in Mathematics), University of Dhaka, Dhaka - 1000, Bangladesh.

**Result: First Class 3rd Position**

# Positions held after Ph. D.

* **Associate Dean for Research, School of Science,** University of Management and Technology (UMT), Lahore - 54770, Pakistan (From August 07, 2015 to till date)
* **Director, Centre for Mathematics and its Applications (CMAP)** (From August 12, 2015 to till date)
* **Professor** of Mathematics **(Permanent Position)**, University of Management and Technology (UMT), Lahore - 54770, Pakistan (**From September 06, 2013 to till date = about 1 yr 11 mths and 17 days)**
* **Associate Professor** of Mathematics **(Full-Time Faculty Position)**, University of Management and Technology (UMT), Lahore - 54770, Pakistan (**From October 08, 2012 to till September 05, 2013= 11 months +28 days)**
* **Associate Professor** of Mathematics **(Contractual Full-Time Faculty Position)**, University of Engineering and Technology (UET), Lahore - 54890, Pakistan (**From March 12, 2010 to till May 03, 2012 = (2 yrs. + 01 MTh + 20 days**)).
* **Associate Professor** of Mathematics **(Contractual Full-Time Faculty Position),** Dept.of Mathematics, Lahore University of Management Sciences (LUMS), DHA Lahore Cantt., Lahore – 54792, Pakistan (**From November 13th , 2007 till December 31st, 2009 (= 2 yrs + 01 MTh + 19days)** ).
* **HEC Foreign Professor**, Department of Mathematics, **International Islamic University**, Faculty of Basic and Applied Science, Islamabad, Pakistan: **From 8th February 2007 to August 31st, 2007** **(Employed by Higher Education Commission (HEC) of Pakistan under the Short Term Foreign Faculty Hiring Program (= 6 MThs + 21 days)**
* **Visiting Faculty Member**, Department of Mathematics, Dalhousie University, **Halifax,** **Canada**: June 01, 2006 –August 31, 2006 **(= 3 MThs).**
* **Adjunct Faculty,** Dept. of Computer Science, North South University, Dhaka, Bangladesh: January, 2006 – May, 2006 **(= 4 MThs)**
* **Adjunct Faculty,** City University, Dhaka, Bangladesh: October, 2005 – January, 2006 **(= 4 MThs)**
* **Associate Professor** of Mathematics, Independent University, Dhaka, Bangladesh: December, 2003 – September, 2005 **(= 1 yr. + 9 MThs)**
* **Assistant Professor** of Mathematics, North South University, Dhaka, Bangladesh: September, 2000 – December, 2003 **(= 3 yrs + 3 MThs + 5 days)**
* **Post-doctoral Experience** (Research officer/Assistant/Co-researcher): Dept. of Mathematics, University of Queensland, Brisbane, Australia; From 29th June, 1998 – 30th September, 2000. **(= 2 yrs + 3 MThs + 2 days)**
* **1998 Summer School Lecturer**: Dalhousie University, Halifax, Canada **(= 1 MTh + 16 days with 36 lecture hours + office hours)**
* **1997 Summer School Lecturer**: Dalhousie University, Halifax, Canada **(= 1 MTh + 18 days with 36 lecture hours + office hours)**

# Duration of Doctoral Studies: Jan., 1992 – Dec., 1996 (Ph.D. Degree was Conferred in May, 1997)

# Positions held before Ph. D.

* **Lecturer of Mathematics**, King Fahd University of Petroleum and Minerals (**KFUPM**), Dhahran, Saudi Arabia: September, 1988 – December, 1991**(=3 Yrs. + 4 MThs)**
* **Research/Teaching Assistant**, King Fahd University of Petroleum and Minerals (**KFUPM**), Dhahran, Saudi Arabia: November, 1984 – August, 1988 **(=3 Yrs. + 9 MThs + 23 days)**
* **Part-Time Teaching Assistant (Non-Lecturing Position): Winter and Spring 1993:** Dept. of Mathematics and Statistics, Memorial University of Newfoundland, St. John’s., N.F., Canada A1C 5S7.
* **Part-Time Teaching Assistant (Non-Lecturing Position): Fall 1996, Winter and Fall 1997 and Winter 1998:** Dept. of Mathematics and Statistics, Dalhousie University, Halifax, N.S., Canada B3H 3J5.

*Research Activities* ***in Australia*** *(May 10, 2001 – August 10, 2001; August 5, 2002 – Sept. 2, 2002 & May 23, 2003 – Sept. 7, 2003):*

* Research collaborations were made with Professor Dr. E. Tarafdar and Professor Dr. H. B. Thompson during the above mentioned period

*Teaching Related Experience and Others at KFUPM, NSU and IUB:*

* Served in Curriculum Committee at Independent University, Bangladesh (**IUB**): January 2004-September 2005.
* Served in Math. Olympiad Committee, at Independent University, Bangladesh (**IUB**): January 2004 - December 2004
* Advised undergraduate students of North South University in Dhaka, Bangladesh during semesters from Fall 2000 through Fall 2003.
* Served in Journal Committee at North South University(**NSU**): September 2003 - December 2003;
* Served in M.Sc.-Computer Sc. Admission Test Question-(Math. Part) Committee at North South University(**NSU**): April 2003;
* Developed the Course Outlines of Math. 370-Real Analysis Course for Math. Minor students at North South University in January 2003.
* Served in Strategic Planning Meeting of Computer Science and Engineering Dept., North South University: December 2002;
* Worked as **Coordinators** of Linear Algebra and Calculus Courses at the Dept. of Computer Science of North South University.
* Appointed as a member of the **Exam Committee** of the Preparatory Year Math I for the Fall Semester of the Academic Year 1990-1991 at the Dept. of Mathematical Sciences of KFUPM.
* Appointed as **Coordinator** of the Preparatory Year Math I for the Fall Semester of the Academic Year 1990-1991 at the Dept. of Mathematical Sciences of KFUPM.
* Appointed as a **Vice-Chairman** of the **Sub-committee** for the Preparatory Year Math I of **the Preparatory Year Exam Committee i**n the Fall Semester of the Academic Year 1991-1992 at the Dept. of Mathematical Sciences of KFUPM.
* Appointed as a member of the following **Standing Committees** of the Dept. of Mathematical Sciences of KFUPM.

1. **Career-Day Committee** (1988-1989 Semesters I and II)
2. **Scheduling Committee** (1989-1990 Semesters I and II)
3. **Social Committee** (1990-1991 Semesters I and II)
4. **Social Committee** (1991-1992 Semester I).

**Administrative positions held at IIU, Islamabad and at UET, Lahore:**

* **Convener: Verifying Committee for verifying the publications of two Ph.D. scholars at UET whether the publications were in HEC Recognized International Science Journals or not;**
* **Member: Graduate Committee, Faculty of Basic and Applied Science, IIUI;**
* **Chairman: Undergraduate Committee, Dept. of Mathematics, IIUI;**
* **Member: Research and Seminar Committee, Dept. of Mathematics; IIUI.**

**Ph.D. Students Supervision (since Spring 2010):**

I was a HEC Approved Ph.D. Supervisor in Mathematics at the University of Engineering & Technology (UET), Lahore, Pakistan. One Faculty Member of the Dept. of Mathematics at UET, Lahore, who is a registered Ph.D. scholar of the Bahauddin Zakaria University (BZU) in Multan, Pakistan, was being guided for undertaking research for his Ph.D. thesis under my supervision as a co-supervisor during March, 2010 to March, 2012

**M.S. Theses Supervisions (Spring 2007 – Spring 2008) at the International Islamic University, Islamabad (IIUI), Pakistan.**

**Two M.S./M. Phil Theses students had been supervised from Spring-2007 to Summer-2008 semesters.**

**M.Sc. Project Supervision (Spring 2011) at the University of Engineering & Technology (UET), Lahore, Pakistan**

**One (1) M.Sc. Project student has been supervised during Spring-2011 Semester at UET, Lahore.**

**M.S. Theses Supervisions (Spring 2014 – Till Date) at the University of Management and Technology (UET), Lahore, Pakistan.**

**Three M.S./M. Phil Theses students are being supervised from Spring-2014 and Summer 2014 at the University of Management and Technology (UMT), Lahore, Pakistan.**

**Courses Taught to M.S. and/or Ph.D. Students since 2013:**

* **MTH-511, Advanced Functional Analysis I, Spring Semester 2014-2015 at UMT, Lahore.**
* **MTH-513, Complex Variable and Transforms, Fall Semester 2014-2015 at UMT, Lahore;**
* **MTH-511, Advanced Functional Analysis I, Spring Semester 2013-2014 at UMT, Lahore.**
* **MTH-620, Advanced Real Analysis, Fall Semester 2013-2014 at UMT, Lahore;**
* **MTH-513, Complex Variable and Transforms, Spring Semester 2012-2013 at UMT, Lahore;**
* **MTH-511, Advanced Functional Analysis I, Spring Semester 2012-2013 at UMT, Lahore.**

**Courses Taught to Ph.D. Students since 2008:**

* **Math -727, Topological Vector Spaces-Spring 2011 (April-July, 2011) at UET, Lahore;**
* **Math -731, Topics in Variational and Quasi-Variational Inequalities- Summer-2010 (July-August, 2010) at UET, Lahore (Not officially recorded because the Dept. asked me to teach this course before it was officially approved by the Academic Council);**
* **Math 692E-1, Variational Inequalities (Thesis Research), Spring 2008-2009 at LUMS, Lahore;**
* **Math 503-1, Advanced Complex Analysis, Winter 2008-2009 at LUMS, Lahore;**
* **Math 692B, Topics in Variational and Quasi-Variational Inequalities, Winter 2008-2009 at LUMS, Lahore;**
* **Math 521-1, Advanced Algebra, Autumn 2008-2009 at LUMS, Lahore.**

**Courses Taught to M.S. and/or M.Phil Students since 2007:**

* **Math -718, Applied Linear Algebra II, Fall 2011-2012 (October, 2011-February, 2012) at UET, Lahore;**
* **Math -703, Applied Linear Algebra I, Spring -2010 (March-August, 2010) at UET, Lahore;**
* **MA 801, Advanced Real Analysis (Measure Theory and Lebesgue Integration), Spring 2007 at International Islamic University, Islamabad.**

**Courses Taught to M.Sc. Level Students since 2007:**

* **MA-2001, Real Analysis II, Spring -2011 (March -2011 –July, 2011) at UET, Lahore;**
* **MA-3007, Differential Geometry, (October-2010-February, 2011) at UET, Lahore;**
* **MA-1001, Real Analysis I, Fall -2010 (October-2010 -February, 2011) at UET, Lahore;**
* **AM 511, Real Analysis-I, Spring 2007 at International Islamic University, Islamabad;**
* **MA-523(& AM-515), General Topology-I, Summer 2007 at International Islamic University, Islamabad;**

**Courses Taught to B.S. and/or M.S. Level Students of Different Majors since 2007:**

* **MA 233-C(BS-EE/H), Complex Variable and Transforms, Spring Semester 2014-2015 at UMT, Lahore;**
* **MA 210-B(BS-EE/H), Linear Algebra, Fall Semester 2013-2014 at UMT, Lahore;**
* **MA 210-D(BS-EE/H), Linear Algebra, Fall Semester 2013-2014 at UMT, Lahore;**
* **MA 233-C(BS-EE/H), Complex Variable and Transforms, Spring Semester 2012-2013 at UMT, Lahore;**
* **MA 200-S and T(BS-TXE), Calculus-III, Fall Semester 2012-2013 at UMT, Lahore;**
* **MA 210-W(BS-CS/H), Linear Algebra, Fall Semester 2012-2013 at UMT, Lahore;**
* **MA 210- B(BS-EE/H), Linear Algebra, Fall Semester 2012-2013 at UMT, Lahore;**
* **Math 210-III, Introduction to Differential Equations, Fall Semester 2009 -2010 at LUMS, Lahore;**
* **Math 220-I, Linear Algebra, Fall Semester 2009 -2010 at LUMS, Lahore;**
* **Math 211-I, Ordinary Differential Equations, Spring 2008 -2009 at LUMS, Lahore;**
* **Math 303-II, Complex Analysis, Spring 2008-2009 at LUMS, Lahore;**
* **Math 221-I, Linear Algebra, Spring 2007-2008 at LUMS, Lahore;**
* **Math 221-II, Linear Algebra, Winter 2007-2008 at LUMS, Lahore;**
* **Math 211-II, Ordinary Differential Equations, Winter 2007-2008 at LUMS, Lahore;**
* **Math 400-2, MATH Independent Study I (Real Analysis I), Winter 2007-2008 at LUMS, Lahore;**

**Courses Taught to B.S. and/or Ph.D. Level Students of Mathematics since 2007:**

* **MA 314, Real Analysis-II, Fall 2014, at UMT, Lahore;**
* **Math 403-1, Real Analysis II, Winter 2008-2009 at LUMS, Lahore;**
* **Math 403-I, Real Analysis II, Spring 2007-2008 at LUMS, Lahore;**

**Courses Taught to B.S. Level Students of Different Majors during 1984-2006:**

* **Multi-Variable Calculus, Summer 2006 at Dalhousie University, Halifax, Canada;**
* **Calculus, Spring 2006 at North South University, Dhaka, Bangladesh;**
* **Linear Algebra, Spring 2006 at North South University, Dhaka, Bangladesh;**
* **Multi-variable Calculus, Fall 2006 at City University, Dhaka, Bangladesh;**
* **Calculus and Multi-variable Calculus, Spring-2004 through Spring-2005 at Independent University, Dhaka, Bangladesh;**
* **Ordinary Differential Equations, Spring-2004 through Spring-2005 at Independent University, Dhaka, Bangladesh;**
* **Numerical Analysis, Spring-2005 at Independent University, Dhaka, Bangladesh;**
* **Calculus and Multi-variable Calculus, Fall-2000 through Fall-2003 at North South University, Dhaka, Bangladesh;**
* **Linear Algebra; Fall-2000 through Fall-2003 at North South University, Dhaka, Bangladesh;**
* **Real Analysis I; Fall 2001 through Fall-2003 at North South University, Dhaka, Bangladesh;**
* **Ordinary Differential Equations, Summer-1998 at Dalhousie University, Halifax, Canada;**
* **Linear Algebra, Summer-1997 at Dalhousie University, Halifax, Canada;**
* **Pre-Calculus, Fall-1984 through Fall-1991 at King Fahd University of Petroleum & Minerals in Dhahran, Saudi Arabia**
* **Supervision of Computer Aided Learning, Fall-1984 through Fall-1991 at King Fahd University of Petroleum & Minerals in Dhahran, Saudi Arabia**

**Courses Taught to BBA and/or to B.Sc. Engineering Students of Various Disciplines during the Years 2010 - 2012:**

* **BMS-112-Business Mathematics II, Spring Semester, 2012 at IB&M Dept., UET, Lahore**
* **Math-203, Applied Mathematics II (Complex Analysis, Ordinary Differential Equations, Partial Differential Equations, Multi-Variable Calculus, Statistics), Spring Semester, 2011 at Polymer Dept., UET, Lahore**
* **Math 107-Engineering Mathematics II (ODE, Multi-Variable Calculus, Vector Calculus and Partial Differential Equations), Spring Semester, 2010 at Mechatraunics Dept, UET, Lahore**
* **Vector Calculus for Computer Science, and Computer Science & Engineering Students, Spring Semester, 2010 at UET, Lahore.**

# Current research interests

* *Minimax inequalities with applications to generalized variational inequalities and generalized quasi-variational and generalized bi-quasi-variational inequalities, generalized complementarity and generalized bi-complementarity problems.*
* *Study of lower hemi-continuous, upper hemi-continuous, weakly lower (respectively, upper) demi-continuous, strongly lower (respectively, upper) demi-continuous, quasi-monotone, quasi-semi-monotone, quasi-nonexpansive, semi-nonexpansive, demi-monotone, strongly pseudo-monotone and pseudo-monotone operators either in generalized variational inequalities with applications to fixed point theorems in Hilbert spaces or in generalized quasi-variational and generalized bi-quasi-variational inequalities*.
* Study of minimax inequalities, and fixed point theorems in topological vector spaces, H-spaces, generalized convex (G-convex) spaces, M-convex spaces and in abstract convex spaces. Study of non-compact sets with G-convex (respectively, M-convex and abstract convex) sections in G-convex (respectively, M-convex and abstract convex) spaces.

# Research Papers published as 1st Author in HEC Recognized International Science Journals (i.e., in Positive Impact Factored Journals which are listed in Journal Citation Reports of ISI in 2012):

1. **Mohammad S. R. Chowdhury**, **and Yeol Je Cho**, “*Generalized Quasi-Variational Inequalities for Pseudo-Monotone Type III and Strongly Pseudo-Monotone Type III Operators on Non-Compact Sets”,* American Journal of Applied Mathematic**s**; Special Issue: Proceedings of the 1st UMT National Conference on Pure and Applied Mathematics (1st UNCPAM 2015). Vol. 3, No. 3-1, June 17, 2015, pp. 46-53. doi: 10.11648/j.ajam.s.2015030301.18
2. **Mohammad S. R. Chowdhury**, **A.N. Abdou** **and Yeol Je Cho,** “*Existence theorems of* *generalized quasi-variational-like inequalities for pseudo-monotone type II operators”,* **J. of Inequal. & Appl., Nov. 05, 2014, 2014:449, ISSN#1025-5834), 18 pages (Impact Factor (I.F.): 0.879)**
3. **Mohammad S. R. Chowdhury**, **and Yeol Je Cho**, “*Existence theorems of* *generalized quasi-variational-like inequalities for $\eta$-h$-pseudo-monotone type I operators on non-compact sets*”; **J. of Inequal. & Appl. April, 2012 (ISSN#1025-5834),** **19 pages, 2012:79. doi:10.1186/1029-242X-2012-79 (Impact Factor (I.F.): 0.879)**
4. **Mohammad S. R. Chowdhury**, and **Kok-Keong Tan**, “*Generalized bi-quasi-variational inequalities for quasi-pseudo-monotone type I operators on non- compact sets*”; **Computers and Mathematics with Applications (ISSN#0898-1221),Vol.60,No.3 (August, 2010),pp.423-431, doi:10.1016/j.camwa.2010.04.036 (I.F.:1.472, 5 year Impact Factor: 1.532)**

**(4) Mohammad S. R. Chowdhury**, **and Yeol Je Cho**, “*Generalized bi-quasi- variational inequalities for quasi-pseudo-monotone type II operators on non-compact sets*”; **J. of Inequal. & Appl.(ISSN#1025-5834), Article ID 2010:237191, 17 pages, February, 2010; doi: 10.1155/2010/237191 (Impact Factor (I.F.): 0.879)**

**(5) Mohammad S. R. Chowdhury**, **and Kok-keong Tan**, “*Generalized bi-quasi-variational inequalities for quasi-pseudo-monotone type II operators on compact sets*”; ***Cent. Eur. J. Math.*(ISSN#1895-1074)*,* 8(1)(2010),pp.158-169;doi: 10.2478/s11533-009-0066-8. (I.F.: 0.581)**

1. **Mohammad S. R. Chowdhury** **and Kok-keong Tan,** “*Generalized variational-like inequalities for pseudo-monotone type III operators*”, ***Cent. Eur. J. Math.*(ISSN#1895-1074)*,* 6(4)(2008),pp.526-536; DOI:10.2478/s11533-008-0049-1;**  **(I.F.: 0.581)**
2. **Mohammad S. R. Chowdhury** **and Kok-keong Tan,** “*Generalized bi-quasi-variational inequalities for quasi-pseudo-monotone type I operators on compact sets*”, **Positivity(ISSN#1385-1292), Vol. 12, No. 3, July, 2008, pp.511-523. (I.F: 0.578)**
3. **Mohammad S. R. Chowdhury** **and H.B. Thompson,** *“Generalized variational-like inequalities for pseudo-monotone type II operators”,* **Non-linear Analysis: Theory, Methods & Applications(ISSN#0362-546X), Vol. 63, Issues 5-7, 2005, pp. e321-e330**. **(I.F: 1.487; 5 year Impact Factor: 1.632)**
4. **Mohammad S. R. Chowdhury** **E. Tarafdar and H.B. Thompson,** *“Non-compact generalized variational inequalities for quasi- monotone, and hemi-continuous operators with applications”,* ***Acta. Math. Hung.*(ISSN#0236-5294)*, Vol. 99(1-2), April 2003*, pp.105-122*.* (I.F: 0.522)**
5. **Mohammad S. R. Chowdhury**, **E. Tarafdar and K.-K. Tan,** *“Minimax inequalities on G-convex spaces with applications to generalized games”,* **Nonlinear Analysis: Theory, Methods & Applications(ISSN#0362-546X); Vol. 43, No. 2, January 2001, pp.253 – 275. (I.F: 1.487; 5 year Impact Factor: 1.632)**
6. **Mohammad S. R. Chowdhury** **and E. Tarafdar,** *“Generalized bi-quasi-variational inequalities for quasi-semi-monotone and bi-quasi-semi-monotone operators with applications in non-compact settings and minimization problems”*, **J. of Inequal. & Appl.(ISSN#1025-5834), Vol 5, No. 1, 2000, pp.63-89. (I.F: 0.879)**
7. **Mohammad S. R. Chowdhury** **and E. Tarafdar,** *“Existence theorems of generalized quasi-variational inequalities with upper hemi-continuous and demi operators on non compact sets”,* **Math. Inequal. Appl.(ISSN#1331-4343), Vol. 2, No. 4, October 1999, pp.585–597. (I.F: 0.49)**
8. **Mohammad S. R. Chowdhury** **and Kok-keong Tan**, *“Applications of upper hemi-continuous operators on generalized bi-quasi-variational inequalities in locally convex topological vector spaces”,* **Positivity(ISSN#1385-1292), Vol. 3, No. 4 (1999), pp.333-344. . (I.F: 0.578)**
9. **Mohammad S. R. Chowdhury** **and E. Tarafdar,** *“Hemi-continuous operators and applications”,* **Acta Math. Hung*.*(ISSN#0236-5294), Vol. 83, No. 3 (1999), pp.251-261. (I.F: 0.522)**
10. **Mohammad S. R. Chowdhury** **and Kok-keong Tan,** *“Study of generalized quasi-variational inequalities for lower and upper hemi-continuous operators on non-compact sets”,*  **Math. Inequal. Appl.(ISSN#1331-4343), Vol. 2, No. 1, January 1999, pp.121-134. (I.F: 0.49)**
11. **Mohammad S. R. Chowdhury** **and Kok-keong Tan,** *“Applications of pseudo-monotone operators with some kind of upper semi-continuity in generalized quasi-variational inequalities on non-compact sets”,* **Proc. Amer. Math. Soc. (ISSN#0002-9939), Vol. 126, No. 10, 1998, pp.2957-2968. (I.F: 0.64)**
12. **Mohammad S. R. Chowdhury** **and Kok-keong Tan**, *“Generalized quasi-variational inequalities for upper semi-continuous operators on non-compact sets”,* **Nonlinear Analysis: Theory, Methods and Applications(ISSN#0362-546X), Proceedings of the Second World Congress of Nonlinear Analysis, Vol. 30:8, pp.5389-5394 (1997). (I.F: 1.487; 5 year Impact Factor: 1.632)**
13. **Mohammad S. R. Chowdhury** **and Kok-keong Tan**, *“Generalization of Ky Fan’s minimax inequality with applications to generalized variational inequalities for pseudo-monotone operators and fixed point theorem”,* **Jour. Math. Anal. Appl. (ISSN#0022-247X), Vol. 204, 1996, pp.910-929**. **(I.F: 1.225; 5 year Impact Factor: 1.365)**
14. **Mohammad S. R. Chowdhury** **and Kok-keong Tan**, “*Note on generalized bi-quasi-variational inequalities”,* **Appl. Math. Lett.(ISSN#0893-9659), Vol 9, No. 3, 1996, pp.97-102**. **(I.F: 1.155; 5 year Impact Factor: 1.127)**

# Research Paper published as SELF Author in HEC Recognized International Science Journals (i.e., in Positive Impact Factored Journals which are listed in Journal Citation Reports of ISI in 2012):

1. **Mohammad S.R. Chowdhury,** “Generalized bi-quasi-variational inequalities for upper hemi-continuous operators in non-compact settings”, ***Acta Math. Hung.*(ISSN#0236-5294)*,* Vol. 92, No. 1-2, pp.111-120,July 2001.(I.F: 0.522)**

# Research Paper Accepted for Publication as 1st Author in HEC Recognized International Science Journals (i.e., in Positive Impact Factored Journals which are listed in Journal Citation Reports of ISI in 2012):

1. **Mohammad S. R. Chowdhury**, **and Yeol Je Cho**, “*Generalized bi-quasi-variational inequalities for quasi-pseudo-monotone type II operators in non-compact settings*”; **FILOMAT , to appear, (ISSN#**0354-5180**),**  **(Impact Factor (I.F.): 0.638 )**

# Research Paper published as 1st Author in US Science Journals (or Books) Recognized by HEC in X Category whose Impact Factors are either Zero or Not Available:

**(22) Mohammad S.R. Chowdhury** **and E. Tarafdar,** *“*Vector Variational Inequalities, Multi-objective Optimizations, Pareto Optimality and Applications”. In: *Set Valued Mappings with Applications in Nonlinear Analysis* (eds R.P. Agarwal and D. O’Regan) pp. 79–127, Sept. 20, 2002. Taylor & Francis: London.

**(23)Mohammad S.R. Chowdhury**, **and Kok-keong Tan**, *“Intersection theorems in G-convex spaces and applications”,*  **PanAmerican Math. J., Vol. 10, No. 2 (2000), pp.39-50.**

**(24)Mohammad S.R. Chowdhury**, **and Kok-keong Tan**, *“Generalized variational inequalities for quasi-monotone, quasi-semi-monotone, lower hemi-continuous and upper hemi-continuous operators in topological vector spaces with applications in non reflexive Banach spaces”,* **Adv. Nonlinear Var. Inequal., Vol. 3, No. 1, 2000, pp.103-124.**

# Research Paper published as SELF Author in US Science Journals Recognized by HEC in X Category whose Impact Factors are either Zero or Not Available:

**(25) Mohammad S.R. Chowdhury, “***A G-KKM type theorem and its applications to minimax inequalities on G-convex spaces”,* **Jour. Appl. Math. Stoch. Anal., Vol 11, No. 4, (1998), pp.493-505.**

# Research Papers published as 1st Author in International Professional Refereed Science Journals Recognized by HEC in X Category whose Impact Factors are either Zero or Not Available:

1. **Mohammad S.R. Chowdhury** **and Sharafat Ali,** *“Generalized bi-quasi- variational inequalities for quasi- pseudo-monotone type I operators in non-compact settings”,* **International Journal of Pure and Applied Mathematics, Vol. 49, No. 3, 2008, pp.399-412.**
2. **Mohammad S.R. Chowdhury**, **A.L. Haque, H.B. Thompson and G.M.A. Quasem,** *“*The surjectivity of pseudo-monotone type III operators in reflexive Banach spaces”, **Nonlinear Funct. Anal. & Appl., Vol. 9, No. 1, March 2004, pp.37-44.**
3. **Mohammad S.R. Chowdhury** **and E. Tarafdar,** *“Existence theorems of generalized quasi- and bi-quasi-variational inequalities for quasi- and bi-quasi-monotone operators with applications in non-compact settings and minimization problems”,* **Nonlinear Funct. Anal. & Appl., Vol. 6, No. 1, April 2001, pp.29-55.**
4. **Mohammad S.R. Chowdhury**, **E. Tarafdar, S.P. Singh and B. Watson,** *“Generalized quasi-variational inequalities for hemi-continuous operators on non-compact sets”*, `Special Issue on Non-linear Analysis and its Applications’, **"Nonlinear Analysis Forum" Vol. 6, No. 1, March 2001, pp.79-90.**
5. **Mohammad S.R. Chowdhury**, **E. Tarafdar, and G. X.-Z. Yuan,** *“Existence theorems of equilibria in G-convex spaces for GLC-majorized correspondences”,* **The Jour. of the Indian Math. Soc., Vol. 66, Nos. 1-4 (1999), pp.145-162.**
6. **Mohammad S.R. Chowdhury**, **and Kok-keong Tan**, *“New minimax inequalities and applications****”,* The Jour. Indian Math. Soc., Vol 63, No.1, 1997, pp.1-36.**
7. **Mohammad S.R. Chowdhury**, **and Kok-keong Tan**, *“Generalized variational inequalities for quasi-monotone operators and applications”*, **Bulletin of the Polish Academy of Sciences, Vol. 45, No. 1, 1997, pp.25-54.**

# Research Papers published as SELF Author in International Professional Refereed Science Journals Recognized by HEC in X Category whose Impact Factors are either Zero or Not Available:

1. **Mohammad S.R. Chowdhury,** *“The surjectivity of upper-hemicontinuous and pseudo-monotone type II operators in reflexive Banach spaces”,* **Ganit: J. Bangladesh Math. Soc., Vol. 20, 2000 (published in 2002), pp.45-53.**
2. **Mohammad S.R. Chowdhury, “***Upper semi-continuous de-compositions of E3 into subarcs of Bing’s sling and points****”,* The Jour. of the Indian Math. Soc., Vol 66, Nos. 1-4 (1999), pp.163-175.**
3. **Mohammad S.R. Chowdhury,** *“Generalized variational inequalities for upper hemi-continuous and demi-operators with applications to fixed point theorems in Hilbert spaces”,* **Serdica Math. J., Vol. 24, 1998, pp.163-178.**
4. **Mohammad S.R. Chowdhury,** “Generalized quasi-monotone operators with applications to generalized quasi-variational inequalities on non-compact sets**”, Far East Jour. of Math. Sc., Special Volume (1997), Part III, pp.283-305.**

# Research papers completed as a Visiting Faculty of Dalhousie Univ. in Canada

* Four (4) research articles were completed while visiting Dalhousie University, Canada during summer – 2006 for teaching and collaborating research with Professor Dr. Kok-Keong Tan. As a result of this collaboration we got the above four (4) papers published **in HEC Recognized and Impact Factored Journals** which are listed in **Journal Citation Reports** of ISI in 2012.

#### Creative Works

* **Reviewer for the Mathematical Reviews of the American Mathematical Society:**

The following are some of the published articles which were reviewed by myself as critical reviews for the **Mathematical Reviews of the American Mathematical Society:**

1. P.Q. Khanh and L.T. Tung, “Local uniqueness of solutions to Ky Fan vector inequalities using approximations as derivatives”, J. Optim. Theory Appl., Vol. 155(2012), No. 3, pp.840-854.
2. Yi-bin Xiao, Nan-Jing Huang and Mu-Ming Wong, “Well-posedness of hemivariational inequalities and inclusion problems”, Taiwanese J. Math., Vol. 15(2011), No. 3, pp.1261-1276.
3. Shih-Chen Chang, Xiong Rui Wang, H.W. Joseph Lee, and Chi Kin Chan, “Strong and weak convergence theorems for an infinite family of Lipschitzian pseudocontraction mappings in Banach spaces”, Int. J. Math. Sci., 2011, Art. ID 409898, 10pp.
4. A.P. Farajzadeh, A. Amini-Harandi and K.R. Kazmi, “Existence solutions to generalized vector variational-like inequalities”, J. Optim. Theory Appl., Vol. 146 (2010), No. 1, pp.95-104.
5. K. Wlodarczyk and R. Plebaniak, “Maximality principle and general results of Ekeland and Caristi types without lower semi-conitnuity assumptions in cone uniform spaces with generalized pseudodistances” , Fixed Point Theory Appl., 2010, Art. ID 175453, pp.1-35.
6. Xie-Ping Ding, “Systems of generalized vector quasi-variational inclusions and systems of generalized vector quasi-optimization problems in locally FC-uniform spaces”, Appl. Math. Mech., Vol. 30 (2009), No. 3, pp.263-274.
7. Yonghong Yao, Haiyun Zhou, and Yeong-Cheng Liou, “Weak and strong convergence theorems for an asymptotically k-strict pseudo-contraction and a mixed equilibrium problem”, J. Korean Math. Soc., Vol. 46 (2009), No. 3, pp.561-576.
8. Rabian Wangkeeree, Uthai Kamraksa, “Some modified extragradient approximation methods for variational inequality problems and equilibrium problems of nonexpansive mappings”, Appl. Math. Sci.(Ruse), Vol. 3 (2009), Nos. 13-16, pp.653-666.
9. Shin-ya Matsuhsita, and Wataru Takahashi, “Existence of zero points for pseudomonotone operators in Banach spaces”, J. Global Optim., Vol. 42 (2008), No. 4, pp.549-558.
10. Alejandro Jofre, and Roger J.-B. Wets, “Variational convergence of bivariate functions: lopsided convergence”, Math. Program., Vol. 116 (2009), No. 1-2, Ser. B., pp.275-295.
11. E. Huebner, and R. Tichatschke, “Relaxed proximal point algorithms for variational inequalities with multi-valued operators”, Optim. Methods Softw., Vol. 23 (2008), No. 6, pp.847-877.
12. Xiao-yan Zang, and Lei Deng, “Iterative algorithm of solutions for multivalued general mixed implicit equilibrium-like problems”, Appl. Math. Mech. (English Ed.), Vol. 29(2008), no. 4, pp.477-484.
13. Zeqing Liu, and Shin Min Kang, “Convergence and stability of three-step iteration schemes with errors for generalized nonlinear complementarity problems”, Int. J. Math. Anal. (Ruse), Vol. 1(2007), no.27, pp.1341-1352.
14. Xie-Ping Ding, Chinsan Lee, and Su-Jane Yu, “Algorithm of solutions for a system of generalized mixed implicit quasi-variational inclusions involving -maximal monotone mappings”, Taiwanese J. Math., Vol. 11(2007), no.3, pp.577-593.
15. Rais Ahmad and Qamrul Hasan Ansari, “Generalized variational inclusions and *H*-resolvent equations with *H*-accretive operators”, Taiwanese J. Math., Vol. 11(2007), no.3, pp.703-716.
16. Min-Ru Bai, Shu-Zi Zhou, and Gu-Yan Ni, “On the generalized monotonicity of variational inequalities”, Comput. Math. Appl., Vol. 53(2007), no. 6, pp.910-917.
17. G. Isac and D. Motreanu, “A Characterization of Monotone Nonlinear Operators by Pseudo-Monotonicity”, Nonlinear Analysis Forum, Vol. 11(2006), No. 1, pp.61-66.
18. Lu-Chuan Zeng, Yen-Cherng Lin and Jen-Chih Yao, “On weak and strong solutions of F-implicit generalized variational inequalities with applications”, Appl. Math. Lett., Vol. 19, (2006), no. 7, pp.684-689.
19. Ya-Ping Fang and Nan-Jing Huang, “Strong vector variational inequalities in Banach spaces”, Appl. Math. Lett., Vol. 19(2006), No. 4, pp.362-368.
20. Yasunori Kimura, “Weak convergence of resolvents of maximal monotone operators and Mosco convergence”, Fixed Point Theory, Vol. 6(2005), No. 1, pp.59-69.
21. M. Fakhar, and J. Zafarani, “Generalized equilibrium problems for quasi-monotone and pseudo-monotone bifunctions”, J. Optim. Theory Appl., Vol. 123(2004), No.2, pp.349-364.
22. Cao-Zong Cheng, “Two-function upward-downward minimax theorems”, J. Math. Anal. Appl., Vol. 296(2004), No.1, pp.183-189.
23. Bingsheng He, Xiaoming Yuan, and Jason J.Z. Zhang; “Comparison of two kinds of prediction-correction methods for monotone variational inequalities”, Comput. Optim. Appl. Vol. 27(2004), No.3, pp.247-267;
24. Liu, Z., Debnath, L., Knag, S.M. and Ume, J.S., “Sensitivity

analysis for parametric completely generalized nonlinear

implicit quasivariational inclusions”, J. Math. Anal. Appl.,

Vol. 277(2003), No. 1, pp.142-154;

1. Noor, Muhammad Aslam, “Implicit resolvent dynamical systems for quasi-variational inclusions”, J. Math. Anal. Appl., Vol. 269(2002), No. 1, pp.216-226;
2. Chadli, O., Chbani, Z.and Riahi, H., “Equilibrium problems and noncoercive variational inequalities”, Optimization, Vol. 50 (2001), No. 1-2, pp.17-27;
3. Li, J., “Applications of a general minimax type principle to variational inequalities and approximation theory”, Nonlinear analysis and its applications (St. John’s, NF, 1999), Nonlinear Anal. Forum Vol. 6 (2001), No. 1, pp.151-161;
4. Noor, M.A., “Resolvent equations technique for general variational inclusions”, Nonlinear analysis and its applications (St. John’s, NF, 1999), Nonlinear Anal. Forum Vol. 6 (2001), No. 1, pp.171-184;
5. Carbone, A., “Existence of maximal elements and applications”, Nonlinear analysis and its applications (St. John’s, NF, 1999), Nonlinear Anal. Forum Vol. 6 (2001), No. 1, pp.59-68;
6. Ansari, Abul Hasan, Siddiqi, Abul Hasan, and Yao, Jen-Chih, “Generalized vector variational–like inequalities and their scalarizations”, Vecor variational inequalities and vector equilibria, 17-37, Nonconvex Optim. Appl., 38, Kluwer Acad. Publ., Dordrecht, 2000;
7. Montreanu, Dumitru and Radulescu, Vicentiu, “Existence results for inequality problems with lack of convexity”, Numer. Funct. Anal. Optim., Vol. 21 (2000), Nos. 7-8, pp.869-884;
8. Bull. Polish Acad. Sc. Math., Vol. 45, (1997), No. 2, pp.211-220;
9. Bull. Korean Math. Soc., Vol. 34 (1997), No. 4, pp.603-615;
10. A critical review was submitted on a published paper presenting a further extension of random variational inequality and random quasi-variational inequality problems introduced and studied by Chang (1984), Chang and Huang (1993), Chang and Zhu (1989), Huang (1994), Husain, Tarafdar and Yuan (1994), Tan, Tarafdar and Yuan (1994), N.X. Tan (1986) and Yuan (1994).

# Refereeing Papers For Journals:

The following are some of the papers which were reviewed by myself for different international journals/proceedings including Archiv Der Mathematik (Germany), Applied Math. Letters (U.S.A.), Nonlinear Analysis, T.M.A. (U.S.A.), Serdica Mathematical Journal (Bulgaria), Journal of Optimization Theory (U.S.A.), Journal of Applied Analysis (Poland), Bulletin of the Iranian Mathematical Society, and Bulletin of the Australian Mathematical Society (Australia):

* Refereed a paper entitled “S-Common fixed point theorems for S-occasionally weakly compatible mappings in metric spaces” for the **Journal of Indian Mathematical Society, India**.
* Refereed a paper entitled “Coincidence Theorems and Minimax Inequalities in Abstract Convex Spaces“ for the **Journal of Inequalities and Applications, U.S.A.**
* Refereed a paper entitled “Upper Continuity of Solution Maps for a Parametric Weak Vector Variational Inequality” for the **Journal of Inequalities and Applications, U.S.A.**
* Refereed a paper entitled “Stability of Generalized Implicit Proximal Dynamical Systems with General $A$-Monotone Operators” for the **Mathematical and Computer Modeling** journal in USA.
* Refereed a paper entitled “Some Extragradient Methods for Nonconvex Quasi Variational Inequalities” for the **Bulletin of Mathematical Analysis and Applications, Iran.**
* Refereed a paper entitled "Existence of Solutions for $\eta$-Generalized Vector Variational-like Inequalities” for the **Journal of Inequalities & Applications, U.S.A.**
* Refereed a paper entitled “Upper semicontinuity of solution maps for a parametric weak vector variational inequality” for the **Journal of Inequalities & Applications, U.S.A.**
* Refereed a paper entitled “Two-step projection methods for a system of variational inequality problems in Banach spaces” for **Applied Mathematics Letters**, U.S.A.
* Refereed a paper entitled “Two-step iterative algorithm for a system of generalized implicit variational-like inclusions with ($A$, $\eta$) monotone mappings”, for the Bulletin of the Belgian Mathematical Society, Belgium.
* Refereed a paper entitled “On the solution existence of generalized vector quasi-equilibrium problems with discontinuous functions” for the SIAM Journal on Optimization, USA.
* Refereed a paper entitled “General variational inclusions in L^P spaces” for the **International Journal of Mathematics and Mathematical Sciences(IJMMS),** Dept. of Mathematics, University of Texas- Pan American, Edinburg, TX- 78539, U.S.A.
* Refereed a paper entitled “Existence and Algorithm of Solutions for Generalized Non-linear Variational-like Inequalities” for the **International Journal of Mathematics and Mathematical Sciences(IJMMS),** Dept. of Mathematics, University of Texas- Pan American, Edinburg, TX- 78539, U.S.A.
* Refereed a paper entitled “Lacunary Strongly Almost Summable Sequences” for the International Journal of Mathematics and Mathematical Sciences, Dept. of Mathematics, University of Texas- Pan American, Edinburg, TX- 78539, U.S.A.
* Refereed a paper entitled “Solutions of Nonlinear Evolution Inclusions” by Su Ke and He Zhen for **Mathematical and Computer Modelling**, an international journal, Systems Science & Mathematics, **Washington University, U.S.A.**
* Refereed a paper entitled “Variational principles for monotone and maximal bifunctions” by Zaki Chbani and Hassan Riahi for **Serdica Mathematical Journal**, Institute of Mathematics and Informatics, Bulgarian Academy of Sciences.
* Refereed a paper entitled “KKM theorem with applications to lower and upper bounds equilibrium problem in G-convex spaces” by M. Fakhar and J. Zafarani for **International Journal of Mathenmatics and Mathematical Sciences**, Dept. of Mathematics, University of Texas- Pan American, Edinburg, TX- 78539, U.S.A.
* Refereed a paper entitled “A remark on the fixed point theorem for self maps” for the **Journal of the Bangladesh Mathematical Society**, Dept. of Math., University of Dhaka, Bangladesh.
* Refereed a paper entitled “Fixed points and generalized vector equilibrium problems in generalized convex spaces” by Xie Ping Ding for the **Indian Journal of Pure and Applied Mathematics**, New Delhi, India.
* Refereed a paper entitled “On maximal element problem and quasi-variational inequality problem in L.C. metric spaces” by Hui Li Zhang for the **Journal of Applied Analysis**, Institute of Mathematics, Technical University of Lodz, Al. Politechniki 11, 90-924 Lodz, POLAND.
* Refereed a paper entitled “On the solvability and application of the variational inequalities involving the mapping of type (M)” by He Zhen and Fan Ruiqin for **Applied Mathematics Letters**, U.S.A.
* Refereed a paper entitled “Generalized variational-like inequalities with pseudo-monotone set-valued mappings” by Xie Ping Ding and E. Tarafdar for **Archiv Der Mathematik**, Germany.
* Refereed a paper entitled “Fixed point theory of Monch type for weakly sequentially upper semi-continuous maps” by Donal O’Regan submitted to the **Bulletin of the Australian Mathematical Society**, Dept. of Mathematics, the University of Queensland, Brisbane, Queensland, Australia.
* Refereed a paper entitled “Existence of equilibrium in generalized games with an abstract convexity structure” by J.V. Linares submitted to the **Journal of Optimization Theory and Applications**, Dept. of Mathematics, University of Washington, Seattle, Washington, U.S.A.
* Refereed a paper entitled “Distal compactifications of transformation semi-groups” by A. Jalilian abd M.A. Pourabdollah submitted to the **Bulletin of the Iranian Mathematical Society**.
* Refereed a paper for publication in the **Proceedings of the Second World Congress of Non-linear Analysts**, held in Athens, Greece, during July 10-17, 1996.
* **Editorial Board Member:**

Working as one of the Editorial Board Members of the “Journal of Basic and Applied Sciences since March 2014. This journal is being published by Life Science Global (www.lifescienceglobal.com).

* **LEAD GUEST EDITOR AND GUEST EDITOR:**

Worked as the Lead Guest Editor and the Guest Editor of the 1st Proceedings of the 1st UMT National Conference on Pure and Applied Mathematics (1st UNCPAM 2015) which was published online by during June 10-20th, 2015, as a Special Issue of the American Journal of Applied Mathematics (AJAM).

Also helped in editing the 2nd Proceedings of the 1st UNCPAM 2015 which will be published soon in September, 2015 as a Special Issue of the Punjab University Journal of Mathematics, Punjab University, Lahore.

List of Books and/or Articles Written in Books

(1) The Following Book was Published by The World Scientific Publishers Co.:

***Topological Methods for Set-Valued Non-linear Analysis***

**Publisher: World Scientific Publishers Co., U.K., Singapore;**

**Date Published: February 22, 2008**

**Authors: Enayet Ullah Tarafdar and Mohammad S.R. Chowdhury**

**(2) The Survey Article entitled “**Vector Variational Inequalities, Multi-objective Optimizations, Pareto Optimality and Applications; pp.79-127”- authored by **Mohammad S.R. Chowdhury** **and E. Tarafdar, was published in the following book on 20th September, 2002:**

***Set Valued Mappings with Applications in Nonlinear Analysis***

**Publisher: Taylor & Francis: London**

**Date Published: September 20, 2002**

**Authors: R.P. Agarwal and D. O’Regan**

**Convener of 1st UNCPAM 2015**

* Organized the 1st UMT National Conference on Pure and Applied Mathematics (1st UNCPAM 2015) as the convener in which there were approximately 300 participants including many well known mathematicians and M.Phill/Ph.D. scholars from all over Pakistan and abroad.

# Seminars and Conferences

# Conference on Recent Advances in Mathematical Methods, Models and Applications, Lahore School of Economics, Lahore; April 2015

* Spoke at the “Conference on Recent Advances in Mathematical Methods, Models and Applications” which was held at the Centre for Mathematics & Statistical Sciences of the Lahore School of Economics, during April 11-12, 2015.

Title of Talk: Generalized bi-quasi-variational inequalities

for quasi-pseudo-monotone type II operators in non-compact settings.

# Workshop on Modern Aspects of Algebra and Graph Theory, COMSATS Institute of Information Technology (CIIT), Lahore Campus, Lahore; March 2015

* Attended the “Workshop on Modern Aspects of Algebra and Graph Theory” which was held at the COMSATS Institute of Information Technology (CIIT), Lahore Campus during March 27-28, 2015.

# 1st UMT National Conference on Pure and Applied Mathematics (1st UNCPAM 2015), University of Management and Technology (UMT), Lahore; March 7-8, 2015.

* Organized the “1st UMT National Conference on Pure and Applied Mathematics (1st UNCPAM 2015)” as its Convener which was held at the University of Management and Technology (UMT), Lahore, Pakistan, during March 7-8, 2015.
* At this conference 6 speakers were invited by the convener from the eminent local and international mathematicians; moreover, around 55 participants from all over Pakistan registered as general speakers and almost 300 participants attended this august conference.
* Also spoke at the above august conference and presented the following talk:

Title of Talk: Generalized quasi-variational-like inequalities for upper hemi-

continuous and pseudo-monotone type II operators on non-compact sets

# SEOUL International Congress of Mathematicians, 2014(SEOUL ICM 2014)

* Attended the “Seoul International Congress of Mathematicians, 2014” which was held in Seoul, Korea, during August 13 through August 21, 2014. A research paper was presented through poster presentation at this august conference;

Title of Presentation: Generalized quasi-variational-like inequalities for pseudo-

monotone type II operators on non-compact sets

# 22nd International Conference on Finite or Infinite Dimensional Complex Analysis and Applications, August 8-11, 2014 (22nd ICFIDCAA, 2014, Gyeongju, South Korea)

* Spoke twice at the “22nd International Conference on Finite or Infinite Dimensional Complex Analysis and Applications (22nd ICFIDCAA, 2014)”, a satellite conference of SEOUL ICM 2014, which was held at Dongguk University in Gyeongju, South Korea during August 8 through August 11, 2014.

Title of 1st Talk:(i) Generalized quasi-variational inequalities for pseudo-

monotone type III and strongly pseudo-monotone type III operators on non-

compact sets;

Title of 2nd Talk: (ii) Generalized bi-quasi-variational inequalities for quasi-

pseudo-monotone type II operators in non-compact settings.

**Chairperson of Conference Sessions:** Chaired a session of the above International Conference on Finite or Infinite Dimensional Complex Analysis and Applications (22nd ICFIDCAA) held at Dongguk University in Gyeongju, Korea during August 8 through August 11, 2014.

# Conference on Recent Advances in Mathematical Methods, Models and Applications, Lahore School of Economics, Lahore; April 2014

* Spoke at the “Conference on Recent Advances in Mathematical Methods, Models and Applications” which was held at the Centre for Mathematics & Statistical Sciences of the Lahore School of Economics, during April 19-20, 2014.

Title of Talk: Existence theorems of generalized quasi-variational-like inequalities

for eta-h-pseudo-monotone type I operators on non-compact sets.

# 1st Doctoral Conference of SBE at UMT, Lahore on December 07, 2013, Lahore

* Attended the above conference on December 07, 2013 at UMT, Lahore and also worked as a chairperson of a session at this conference.

# LUMS Winter Conference in Mathematics 2010, LUMS, Lahore

* Attended the “LUMS Winter Conference in Mathematics -2010” held at the Centre for Advanced Studies in Mathematics in LUMS during December 30 through December 31, 2010.

# 11th International Pure Mathematics Conference 2010, NCP, Islamabad

* Spoke at the 11th International Pure Mathematics Conference held in National Centre for Physics (NCP), Islamabad, Pakistan during August 06-08, 2010 under the auspices of Pakistan Mathematical Society, Quaid-E-Azam University, National Centre for Physics and Preston University.

Title of Talk: Generalized bi-quasi-variational inequalities for quasi-pseudo-

monotone type II operators on compact sets (**Published in 2010 in “Central**

**European Journal of Mathematics”.**)

# LUMS Summer Conference in Mathematics 2010, LUMS, Lahore

* Spoke at the “LUMS Summer Conference in Mathematics -2010” held at the Centre for Advanced Studies in Mathematics in LUMS during July 26 through July 27, 2010.

Title of Talk: Generalized bi-quasi-variational inequalities for quasi-pseudo-

monotone type II operators on non-compact sets.

# Fifth World Congress of Nonlinear Analysts, Orlando, Florida, USA

* Spoke at the “Fifth World Congress of Non-linear Analysts” held in Orlando, Florida, U.S.A. during July 02 through July 09, 2008.

Title of Talk: Generalized bi-quasi-variational inequalities for quasi-pseudo-

monotone type II operators on non-compact sets

# Fifth International Conference of Applied Mathematics and Computing, Plovdiv, Sofia, Bulgaria

* Spoke at the “Fifth International Conference of Applied Mathematics and Computing” held in Plovdiv, Sofia, Bulgaria during August 12 through August 18, 2008

Title of Talk: Generalized bi-quasi-variational inequalities for quasi-pseudo-

monotone type I operators in non-compact settings

**Lums Winter Conference in Mathematics – Dec. 21-22, 2008**

* Spoke at the above conference at LUMS during Dec 21-22, 2008

Title of Talk: Generalized variational inequalities for hemi-continuous and quasi- monotone operators and fixed point theorems

# Conference on Recent Advances in Mathematical Methods, Models &, Applications, Lahore University of Management Sciences (LUMS), Lahore, Pakistan

* Spoke at the above conference at LUMS during April 26-27, 2008.

Title of Talk: Generalized bi-quasi-variational inequalities for quasi-pseudo-

monotone type I operators on compact sets

# 2nd International Conference on Mathematics, Lahore University of Management Sciences (LUMS), Lahore, Pakistan

* Spoke at the 2nd International Conference on Mathematics held at Lahore University of Management Sciences (LUMS), Lahore, Pakistan during March 09-12, 2008, as an invited speaker.

Title of Talk: Generalized bi-quasi-variational inequalities for quasi-pseudo-

monotone type I operators on non-compact sets

* **Chairperson of Conference Sessions:** Chaired at least two session of the above International Conference on Mathematics held at Lahore University of Management Sciences (LUMS), Lahore, Pakistan during March 09-12, 2008.

# 8th International Pure Mathematics Conference, Hotel Margala, Islamabad

* Spoke at the 8th International Pure Mathematics Conference held in Hotel Margala, Islamabad, Pakistan during August 24-26, 2007 under the auspices of Pakistan Mathematical Society, Quaid-E-Azam University, and Preston University.

Title of Talk: Generalized bi-quasi-variational inequalities for quasi-pseudo-

monotone type II operators on compact sets (unpublished)

* **Chairperson of Conference Sessions:** Chaired a session of the above 8th International Pure Mathematics Conference of Pakistan Mathematical Society, Quaid-E-Azam University, and Preston University held in Hotel Margala, Islamabad, Pakistan.

# All Pakistan Mathematical Conference, Pakistan Academy of Sciences, Islamabad

* Spoke at the **All Pakistan Mathematical Conference** held at Pakistan Academy of Sciences, Islamabad, Pakistan, during June 7-9, 2007

Title of Talk: *Generalized variational-like inequalities for pseudo-monotone*

type III operators.

# Fourth World Congress of Nonlinear Analysts, Orlando, Florida, USA

* Spoke at the ``**Fourth World Congress of Non-linear Analysts**’’ held in Orlando, Florida, U.S.A. during June 30---July 7, 2004.

Title of Talk: *Generalized variational-like inequalities for pseudo-monotone*

*Type II operators*

* **Chairperson of Conference Sessions:** Chaired a session on Operator Theory and Evolution Equations in the above Fourth World Congress of Non-Linear Analysts (WCNA-2004)

**3rd International Conference on Applied Mathematics and Mathematical Physics, Sylhet, Bangladesh**

* Spoke at the **“3rd International Conference on Applied Mathematics and Mathematical Physics**’’ held at Shahjalal University of Science & Technology, Sylhet, Bangladesh during 6-9 January, 2003

Title of Talk: *The surjectivity of pseudo-monotone type III operators in*

*reflexive Banach spaces*

**4th Conference on Mathematical Economics and its Relevance for Development, Chittagong University, Chittagong, Bangladesh.**

* Spoke at the “**4th Conference on Mathematical Economics and its Relevance for Development”** held at the “Research Centre for Mathematical and Physical Sciences (RCMPS), Chittagong University in Chittagong, Bangladesh during December 30 – 31, 2001

Title of Talk: Minimax inequalities on G-convex spaces with applications to generalized games

**13th Mathematical Conference of the Bangladesh Mathematical Society,**

**Chittagong University, Chittagong, Bangladesh**

* Spoke at the “**13th Mathematical Conference of the Bangladesh Mathematical Society”,** held at the Research Centre for Mathematical and Physical Sciences (RCMPS), Chittagong University in Chittagong, Bangladesh during December 26 – 28, 2001

Title of Talk: The surjectivity of upper-hemicontinuous and pseudo-monotone

type II operators in reflexive Banach spaces.

# Second World Congress of Nonlinear Analysts, Athens, Greece.

* Spoke at the “**Second World Congress of Non-linear Analysts*”,*** held in Athens, Greece during July 10-17, 1996

Title of Talk: *Generalized quasi-variational inequalities for upper semi-continuous operators on non-compact sets*.

# Scholarship Received

***Canadian Commonwealth Scholarship:* Jan. 1, 1992 ----- December 31, 1996**

# Teaching Interests

* **Undergraduate Course**: Calculus courses at any level, Linear Algebra, Abstract Algebra (Group Theory, Ring Theory), Real Analysis, General Topology, Functional Analysis, Complex Analysis, Set Theory and Logic, Discrete Mathematics, and Ordinary Differential Equations, Numerical Analysis
* **Graduate Course**: General Topology, Measure Theory and Lebesgue Integration, Functional Analysis, Linear Algebra, Topological Vector Spaces, Topics in Variational and Quasi-Variational Inequalities, Advanced Algebra and Advanced Complex Analysis.

# Personal Details

* ***Date of Birth:*** December 20, 1959
* ***Citizenship:*** Australian