TABLE OF CONTENTS

SEC. No.		CATEGORY	PAGE
I		**Foreword**	i
II		**Water Sector**	
	a)	Irrigation and Hydraulics	5
	b)	Water-logging, Salinity, Reclamation and Drainage	13
	c)	Storage, Dams and Sedimentation	19
	d)	Floods and River Training	23
	e)	Hydrology and Meteorology	27
	f)	Hydraulic Structures	31
III		**Buildings and Housing Works**	37
IV		**Water Supply, Sewerage and Public Health Engineering**	41
V		**Transportation and Communication**	
	a)	Highways and Roads	47
	b)	Railways	51
	c)	Bridges	55
	d)	Navigation	59
VI		**Power, Hydro-Wind, Thermal, Oil, Gas, Nuclear and Coal**	63
VII		**Tubewells and Machinery**	67
VIII		**Construction**	71
IX		**Geotechnical**	75
X		**Industriess**	79
XI		**Miscellaneous**	83
XII		**Papers Presented in Symposia from 1957 – 1999**	87
XIII		**Authors Index**	107

SECTION - I

FOREWORD

FOREWORD

The Pakistan Engineering Congress since its inception in 1912 has been holding its Technical Sessions regularly and 606 No. Papers of very high standard (some of them have become guide line criteria) on a number of subjects have been presented and published in almost all the disciplines of Engineering. In addition 224 No. Papers have also been presented during subject specific Symposia on various subjects from 1957-1999.

All these papers are very rich in technical material but somehow reference to a particular Paper on a specified subject has been very difficult, if not impossible for want of a proper subject Index. The necessity of such an Index was seriously felt during mid 1980's and **Engr. S.N.H. Mashhadi** the then Secretary PEC (the current President) assisted by **Myself** and **Mr. Sher Muhammad** prepared a subject Index and published it in October 1985.

In tabulating the Index, the articles with which the title of the Papers start viz 'a', 'an' and 'the' have been ignored and the first letter of the key word following the article has been adopted for grouping and sequence. Besides, the Index has been prepared keeping in view the subject matter and not the department to which it relates, for better reference.

This print is the 2nd edition of the 1985 publication duly revised to include all publications till April 1999. Since there have been no further publications, this edition may well be called as '**The Millennium Edition**' reflecting the Technical achievements of the Members over the 20th Century.

This updated addition has been made possible with the assistance by **Engrs. Imran Ahmad, Muhammad Nadeem and Faisal Javed** whose efforts are appreciated. I am grateful to **Engr. S.N.H. Mashhadi**, President Pakistan Engineering Congress for his motivation and guidance. I am also thankful to *Mr. Mushtaq Ahmad, Mr. Muhammad Sadiq Shahid and Mr. Muhammad Sharif* Computer Operators for composing and typing work. I hope this publication will be found greatly helpful in identification of any required material contained in the printed Proceedings and Symposia publications.

July, 2000

Engr. Syed Mansoob Ali Zaidi
Secretary
Pakistan Engineering Congress

SECTION - II

WATER SECTOR

SECTION - II (a)

IRRIGATION & HYDRAULICS

S. No.	Title	Paper No.	Year of Publication	Name of Author
1	Duty of Distributaries in Sandy Soils.	13	1914	F. Marshal Purves
2	Water proofing operations on the Jhang Branch of the Lower Chenab Canal during 1913-14.	22	1915	T.A. Curry
3	Distributary Offtakes in Relation to silt Conditions.	30	1916	F.V. Elsdon
4	The Absorption Losses of Punjab Irrigation Canals.	31	1917	F.W. Schonemann
5	Lining Irrigation Channels.	32 (CM)	1917	T.A. Curry
6	Exclusion of Heavy Silt from Channels by Vaned Pitching.	41	1918	H.W. King
7	Reinforced Concrete Syphons on the Lower Swat Canal.	42	1918	F. H. Burkitt
8	The Distribution of the Canal Water with special Reference to Outlets	43	1918	J.O. Waterhouse
9	Alignments Charts	44	1918	A.C. Paddy
10	Remodeling Inundation Canals in the Muzaffargarh District.	47	1919	G.W. Duthy
11	Discharge Observations.	48	1919	W.B. Harvey
12	Regime Channels.	49	1919	E.S. Lindley
13	Kharif Channels.	60	1920	T.M. Bostock.
14	Percolation and Absorption of Water in the Soil.	78	1923	B.H. Wilsdon
15	Discharge Curves and a Slide rule.	89	1924	E.S. Lindley
16	Transportation of Silt by Flowing Water.	95	1925	P. Claxton
17	Design of Canals	101	1926	Mohammad Ibrahim
18	Concrete Lining of the Gang (Bikaner) Canal.	102 (CM)	1926	C.F. Jefferis
19	Interlocked Adjustable Module in Precast and Reinforced Concrete Unit.	108	1927	A.N. Khosla
20	Inundation Canal Practice.	119	1928	P. Claxton
21	Energy of Flowing Water, Critical Flow and Standing Waves.	126	1929	A.M.R. Montagu
22	Scientific Distribution of Canal Water and the Use of Auto adjusting Distributors.	128	1929	Radha Krishan Khanna

"CM" represents Congress Medal. "BM" represents Bukhari Medal.
"KM" represents Kennedy Medal. "MM" represents Mubashar Medal.

S. No.	Title	Paper No.	Year of Publication	Name of Author
23	Hydraulic Gradients in Sub-soil Water Flow in Relation to Stability of Structures Resting on Saturated Soils.	138 (CM)	1930	A. N. Khosla
24	A study of the Internal Economy of Water as practiced by Zamindars on an Outlet on the Upper Bari Doab Canal.	151	1932	J.D.H. Bedford
25	Remodeling of Mithalak Distributary.	154	1932	K.R. Sharma
26	An Optical Lever Siltometer.	167	1933	V.I. Vaidhanathan
27	Silt Conduction by Irrigation Outlets.	168	1933	K.R. Sharma
28	Silt Exclusion from Distributaries.	169 (CM)	1933	H.W. King
29	Remodeling of Channels on the Lower Bari Doab Canal, Illustrated by Dulwan (15 L) Distributary.	172	1934	S.L. Malhotra
30	The Lacey Slope Formula.	184	1935	T. Blench
31	Scientific Irrigation Channel Design.	187	1936	T. Blench
32	Water Distribution and Assessment of Revenue at Volumetric Rates.	188	1936	Khushi Ram Erry
33	Silt Movement and Design of Channels.	192	1936	N.K. Bose
34	Agriculture Economics with Special Reference to Irrigation Problems in the Punjab.	198	1937	W. Roberts
35	Turbulent Flow in Channels.	201	1937	T. Blench
36	Some Experiments on Seepage Losses in Irrigation Channels.	209	1938	Nand Gopal & K R Sharma
37	Energy Theory of Turbulent Flow in Liquid.	212	1938	T. Blench
38	Conservation of Punjab Water Supplies.	216	1938	R. M. Gorrie
39	Lining of the Haveli Main Canal.	221 (CM)	1939	R.S. Duncan
40	A Study of the River Conditions on a Model of Khanki Headworks and Investigation of Methods for obtaining uniform Distribution of Flow and Minimum Silt Entry in the Canal.	227	1939	Harbans Lal Uppal & Thakar Das Gulhati
41	Finance and Economics of Irrigation Projects.	228 (CM)	1939	Kanwar Sain
42	Remodeling Distributaries and Distribution of Water to Areas Irrigated by Colony Canals.	230 (CM)	1940	A.W.M. Jesson
43	Theory and Physics of Seepage Losses from Canal.	231	1940	K.R. Sharma
44	Shock in Regime Channel.	233	1940	Gerald Lacey

S. No.	Title	Paper No.	Year of Publication	Name of Author
45	Note on Design and Construction of the Shujabad Branch and its Distributaries.	234	1940	S.L. Malhotra
46	Flow in Expansions in Open Canals.	235	1940	A.R. Thomas
47	Lining of Channels.	240	1940	G.R. Sawhney
48	Control of Flow on Curves in Open Channels.	242	1941	A.N. Wilson
49	Hydraulics of Irrigation Channel.	249	1941	Ishar Das
50	Design of Channels in Alluvium.	252	1942	N.K. Bose & K.R. Erry
51	Observations on Lined (Haveli) Canals.	253	1942	S.N. Kapur
52	Densification of Canal Banks.	257	1942	S.I. Mahbub
53	Water Requirements of Crops.	259	1943	H.R. Steward
54	Lining of Channels.	260 (KM)	1943	S.I. Mahbub
55	A New Treatment of the Principles of Flow.	263	1943	P. Claxton
56	Hydraulic Research Station Malikpur.	265	1944	H.L. Uppal
57	Behaviour of Drift Sand and Method of Dealing with it.	271	1945	M.A. Rahim
58	Methods of Discharge Observations.	272	1945	S.L. Malhotra
59	Silting Tanks on the Western Jumna Canal.	277	1946	RB.H.L. Vadera
60	Movement of Moisture in Soils.	285	1947	A.G. Asghar
61	Studies in Lysimeters Part-I Influence of the Pellicular Zone on the Proportion of Surface Application Reaching the Sub-Soil.	290 (CM)	1951	A.G. Asghar
62	Part-II Construction of Lysimeters and Building up of Soil Profiles.	290 (CM)	1951	A.G. Asghar & H.S. Zaidi
63	Part-III Influence or Surface Application of the Sub-Soil Watertable under Different Corps.	290 (CM)	1951	A.G. Asghar, H.S. Zaidi & M.A. Qayyum
64	Liquid Flow and Silt Transport.	293	1951	Mohammad Ibrahim
65	On Silting of Distributaries and Factors Affecting Sediment Exclusion from Canals.	301	1954	Mohammad Ibrahim & Mushtaq Ahmad
66	Construction Aspects of Balloki-Sulemanki Link.	307 (CM)	1954	S. Allah Bakhsh & M. Muzaffar Ahmad
67	Tests of bs-Theory	310	1955	Abdul Latif
68	Specific Discharge Gauges of Chenab River Sites.	319	1956	Abdul Latif
69	The Phenomena of Losses and Gains in the Indus River System.	329 (CM)	1958	S.S. Kirmani
70	Sediment Problems in the Indus Basin.	336	1959	S.S. Kirmani

S. No.	Title	Paper No.	Year of Publication	Name of Author
71	Dewatering of Foundation.	339 (CM)	1959	Nazir Ahmad & Zia-ul-Haque
72	Sediment Exclusion Methods and Devices at the Intake of Canals.	341	1960	Mushtaq Ahmad, Mohammad Ali & Abdul Khaliq
73	A Stable and Impervious Lining for Canals of West Pakistan.	344	1960	Nazir Ahmad & Abdul Razzaq
74	Sediment Transportation by Running Water and the Design of Stable Channels in Alluvial Soil.	347	1961	Ir. H. Vlugter
75	Silt Carrying Capacity of a Channel and Criteria for Canal Closure Against Excessive Silt Entry.	350	1961	Mushtaq Ahmad & Abdul Rehman
76	Design of Alluvial Channels as influenced by Sediment Charge.	351 (KM)	1962	Mushtaq Ahmad & Abdul Rehman
77	Design of Silt-Stable Canals.	355	1963	S.S. Kirmani
78	Appraisal and Analysis or new Data from Alluvial Canal of West Pakistan in relation to Regime Concepts and Formulae.	356	1963	Mushtaq Ahmad & A. Rehman
79	The Regime Concept and the River Nile.	357	1963	Gerald Lacey
80	Slurry Trench Method of Cut-off.	363	1965	Ramiz Ahmad Malik
81	Operating Bambanwala Ravi Bedian-Depalpur Link Canal in 1961.	369	1965	Mohammad Ali Ch.
82	Earthwork on Irrigation Works in the Land of the Indus.	378	1966	Mazhar Ali
83	Scientific Land Water Use for Increased Production in West Pakistan.	384	1968	Ch. Mohammad Hussain
84	Adaptation of Equiangular Spiral as an Open Channel Curve.	389	1968	Khalid Mahmood
85	Land and Water Management in West Pakistan.	394	1969	Ch. Mohammad Hussain
86	Some Methods of Computing Retrogression in Channels Due to Change in Sediment Charge.	395	1969	Mushtaq Ahmad & Abdul Rehman
87	Irrigation System in Pakistan: Measures to Improve Irrigation Efficiency at the Farm Level	445	1980	I.A. Khaliq
88	Irrigation Requirements of Crops in the Punjab.	446	1980	Abdur Rahman, Nur-ud-Din Ahmad & Muhammad Akram

S. No.	Title	Paper No.	Year of Publication	Name of Author
89	Remodeling of Rohri Canal System.	465	1983	Barkat Ali Luna & S.N.H. Mashhadi
90	Theory of Minimum Rate of energy Dissipation and its Applications.	470	1985	Chih Ted Yang
91	An Overview of Irrigation and Drainage Projects in Pakistan.	478 (KM)	1985	Nazir Ahmad & Sarfraz Ahmad
92	Experimental Errors in Measurement of Alluvial Channels.	491	1986	Ahmad Masud Ch.
93	Design and Construction of Chashma Right Bank Canal Project	494	1987	Mian Muhammad Akram & Izhar-ul-Haq
94	Water Conservation Through Water Course Improvement.	505	1987	Ch. Ata-ur-Rehman
95	Alluvial Channel Redesign procedure	522 (KM)	1990	M. Naimatullah Cheema, M. Hussain Khan & Tahir Hamad
96	Water Management Strategies for Optimizing Productivity.	523	1990	Ch. Nuruddin Ahmad & Nazir Ahmad.
97	Lining of Irrigation Channels with Particular Reference to CWMP.	524	1990	S.N.H. Mashhadi & Ch. Muhammad Akbar
98	The Long Term Behaviour of Qadirabad-Balloki (QB) Link Canal.	525	1990	Tahir Altaf
99	A Model for Efficient Distribution of Irrigation Supplies Among Distributaries.	526	1990	Muhammad Shafique & Muhammad Latif
100	Performance Evaluation of Existing Lined Canals in Pakistan and Suggestions for Improvement.	538	1992	Nazir Ahmad, S.N.H. Mashhadi & Amir-ur-Din Qureshi
101	Open Channel Design in a Minute	540	1992	Farooq Khan Niazi
102	A new Approach for the Design of Alluvial Canal System in Pakistan.	542	1992	Bagh Ali Shahid & F.J. Watts
103	Remodelling Approach for Kabul River Canal System in view of Changing Agro Hydrological Conditions.	550	1992	J.A. Tariq
104	Privatization and Commercialization of Irrigation Management are the New Strategic Workable in Pakistan Setting.	553	1996	Asrar-ul-Haq, Bagh Ali Shahid & Usman Akram
105	Impacts of Planning and Design Changes on Channel Behaviour and Environment. A case Study of Fall at R.D. 64+357 Muzaffargarh Canal.	555	1996	Asrar-ul-Haq, M. Hasnain Khan & Syed H. Gilani
106	Restoring Design Capacity of Marala Ravi Link Canal.	556	1996	A.S. Shakir, Asrar-ul-Haq & Bagh Ali Shahid

S. No.	Title	Paper No.	Year of Publication	Name of Author
107	An Introduction Time Series Modeling and its Applications in Water Resources Engineering.	560	1996	Tahir Hameed, Tahir Ahmad Malik & M. Safdar Chishti
108	Construction of Bored Cast-in-Situ Concrete Piles on Chashma Right Bank Irrigation Project Stage-II.	568	1996	S.N.H. Mashhadi & Syed Manzoor Hussain Rizvi
109	Managing Water Resources Through Users Associations.	581	1998	Mian Hafizullah
110	Multi-Stage Lift Irrigation - Some Adverse Economic & Environmental Aspect - A Case Study.	582	1998	B.A.Malik
111	Irrigation Management Information System. The Framework and Implementation Strategies for Pakistan.	584	1998	Asrar-ul-Haq & M. Hasnain Khan

SECTION - II (b)

WATER LOGGING, SALINITY, RECLAMATION & DRAINAGE

IIb WATER LOGGING, SALINITY, RECLAMATION AND DRAINAGE

S. No.	Title	Paper No.	Year of Publication	Name of Author
1	Surface Drainage Schemes in the Punjab	35	1917	Amar Nath Nanda
2	The Sub-soil Water Table under the Tract Irrigated by the Lower Chenab Canal.	38	1918	C.G. May
3	Waterlogging	52	1919	Iqbal Hussain
4	Drains on the Lower Chenab Canal.	67	1921	W.P. Thompson
5	Waterlogging from Irrigation Canals in Alluvial Soil.	68 (CM)	1921	F.V. Elsdon
6	Sub-soil Water in the Punjab plains.	72	1922	J.H.T. Middleton
7	The Sub-soil Water Table and Methods for its Investigation.	98	1926	B.H. Wilsdon
8	The Treatment of Waterlogged of Threatened Areas by Changes in Distribution and Supply of Irrigation Water.	124	1928	B.H. Wilsdon
9	Exponential Law of Sub-soil Flow.	140	1930	N.K. Bose
10	Sillanwali Drain	178	1935	S.D. Khangar & N.D. Gulhati
11	Waterlogging on the Upper Chenab Canal, its Causes and Cure.	197 (CM)	1937	B.N. Singh
12	The Formation and the Reclamation of Thurlands in the Punjab.	235 (CM)	1940	M. L. Mehta
13	Effect of Capillarity on Drainage in Waterlogged Areas.	255	1942	V.I. Vaidhanathan & Chanan Singh
14	Waterlogging in Western Punjab	284	1947	R.B.S.D. Khangar
15	Consolidation of Reclamation Operation	291	1951	A.G. Asghar & M.S. Sandhu
16	Groundwater Flow Around a Well Installed in Rechna Doab.	305	1954	Nazir Ahmad & Mohammad Nazir
17	Behaviour of Saline-Alkaline Punjab Soils Reclamation.	311	1955	A.G. Asghar & M.A. Hafeez Khan
18	Drainage of Irrigated Soil in Arid Regions	312	1955	A.G. Asghar & Nazir Ahmad
19	Water-Allowance for Reclamation on High Watertable Areas.	313	1955	A.G. Asghar & Ch. Ata-ur-Rehman
20	Commercial and Industrial Uses of Kallar	321	1956	A.G. Asghar
21	Use of Indigenous Sulphur for Lowering Soil Alkalinity.	323	1957	A.G.Asghar, Abdul Hamid & M. Abdullah
22	Characteristics of Saline Water in old Canal Colonies of West Pakistan.	342	1960	A.G. Asghar

S. No.	Title	Paper No.	Year of Publication	Name of Author
23	Technical Appraisal of Salinity Control and Reclamation Project-I with Reference to Decline of Water Level	391	1969	Ch. Ata-ur-Rehman
24	Evaluation of Well Performance and Water Management of Mona Reclamation Experimental Project (1965-1970).	406	1972	Ch. Ata-ur-Rehman
25	Severity of Waterlogging and Salinity Problem in Pakistan.	440	1980	S.M.H. Bokhari
26	Performance Analysis for Scrap-I.	449	1982	N.M. Awan & Mohammad Latif
27	Concept, Planning and Design of Khairwala Drainage Project.	458	1983	S. Mansoob Ali Zaidi
28	Construction of Khairwala Drainage Project	472 (CM)	1985	S. Mansoob Ali Zaidi
29	Gypsum as an Amendment for Reclamation of Saline Sodic Lands.	473	1985	Ch. M. Altaf Hussain & Mohammad Asghar
30	Drainage Study of Coastal Area	485	1986	Bagh Ali Shahid & S. Mansoob Ali Zaidi.
31	Interceptor Drains	488	1986	Izhar-ul-Haq
32	Reclamation of Saline Sodic Land with Chemical Amendments	489	1986	Ch. Altaf Hussain.
33	Drainage Well Design Option for Saline zones	495	1987	Ch. Ata-ur-Rehman
34	Reclamation of Saline Sodic Soil with Brackish Water.	500	1987	M. Altaf Hussain
35	Sub-Surface Pipe Drainage Methodology	511 (BM)	1989	Javed Salim Qamar
36	Rapid Reclamation of Unbroken Saline-Sodic Lands with Ground Water	516	1989	M. Altaf Hussain & Muhammad Asghar
37	Use of Brackish Water for Reclamation and Crop Production.	518	1989	M. Ramzan Ch., Ch. Bashir Ahmad & M. Abaid Ullah
38	Cause and Control of Water-Logging and Salinity	527	1990	Khurshid Ghias.
39	Non-Reclaimable Lands made to Blossom	528	1990	M. Altaf Hussain & Zahid Hussain.
40	Salvation of Baluchistan Kachhi Plain.	529	1990	A.N Cheema & M. Saleem Ch.
41	Drainage of Irrigated Lands of Pakistan – A Critical Review.	543 (BM)	1992	Nazir Ahmad

S. No.	Title	Paper No.	Year of Publication	Name of Author
42	Salinity Extent and Management in Irrigation Commands	577	1998	M. Azhar Javed, Ch. Karamat Ali & M. Javed
43	Experience Gained From Interceptor Drains Installed in LBOD Stage-1 Project.	578	1998	Yawar Hamid
44	Drainage Management to Control Salinity & Alkalinity for Better Crop Production	580	1998	M. Altaf Hussain

SECTION - II (c)

STORAGE, DAMS AND SEDIMENTATION

IIc STORAGE, DAMS AND SEDIMENTATION

S. No.	Title	Paper No.	Year of Publication	Name of Author
1	Auxiliary Reservoirs for Irrigation in the Punjab.	3	1913	C.E. Blaker
2	Dams and Storage Reservoirs.	4	1913	F.W. Schonemann
3	The Namel Dam.	33	1917	Lahna Singh
4	Preliminary Investigation for Storage Schemes.	268	1944	S.D. Khangar & R. Palta
5	Engineering Economics of the Design and Construction of Dams.	276	1946	S.I. Mahbub & C.L. Handa
6	Stability of Earth Dams	302	1954	Mohammad Nazir & J.A. Parvez
7	Foundation Treatment of the Baran Dam of Kurram Garhi Multipurpose Scheme, Bannu.	320	1956	D.M. Khanzada
8	Foundation Problems at Karanafuli Project, East Pakistan.	322	1956	Khawaja Azeem-ud-Din
9	Sedimentation of Reservoirs on Indus River System.	325	1957	Nazir Ahmad & Abdul Hamid
10	Cofferdams for the Warsak Dam	337	1959	M. Saeed Minhas
11	Stress and Stability Analysis of Warsak Dam	338	1959	Asrar A. Qureshy
12	Construction of Tarbela Project.	410	1972	S.A. Hussaini
13	Hydraulic Design Features of Outlet Works for Tarbela Left Bank Irrigation Tunnel.	431	1978	M. Aslam Rasheed & Bashir Ahmad
14	Design and Construction of Simly Dam	452	1982	Izhar-ul-Haq
15	Flushing Operations of Warsak Reservoir Sediment.	454	1982	M.R. Chaudhry
16	Khanpur Dam Project.	461	1983	Izhar-ul-Haq
17	Site Selection of Kala Bagh Dam.	469	1985	Izhar ul Haq
18	Foundation Protection of Tarbela Hydro Power Building Units 508	487	1986	M.R. Chaudhry
19	Monitoring of Mangla Dam Project.	490	1986	Ch. Altaf-ur-Rehman
20	Tarbela Dam Project - Seepage Problem and Remedies.	512	1989	Izhar-ul-Haq
21	Experiences of Inspections of Dams in Pakistan.	520	1989	Altaf-ur-Rehman
22	Problems Related with Sedimentation of Reservoirs in Pakistan.	545	1992	Qazi M. Anwar-ul-Haq
23	A Proposal to Raise Maximum Capacity Level (MCL) of Mangla Reservoir.	557	1996	Abdul Majid

S. No.	Title	Paper No.	Year of Publication	Name of Author
24	Mangla Dam Project. A Proposal for flood Mitigation by 45 ft. Raising of Dam.	558	1996	Abdul Khaliq Khan & Saleem-ud-Din
25	Performance of Tarbela Reservoir.	579	1998	Sardar M.Tariq & M. Mushtaq Ch.

SECTION - II(d)

FLOODS
AND
RIVER TRAINING

S. No.	Title	Paper No.	Year of Publication	Name of Author
1	The Formation of Land by Rivers and Torrents in the Punjab.	2	1913	A.J. Wadley
2	Some Notes on the Result of River Training in the punjab.	15	1914	F.J. Harvey
3	The Training Works on the Sutlej at Rupar.	24	1915	H.W. Nicholson
4	River Training Works and Diversion of Sutlej near Bahawalpur.	27	1916	J. Hartford
5	Extension of the Training Works at the Jamna Bridge near Kalanour.	127	1929	D.C. Varma
6	Hydraulic Observations of the Shyok Flood of 1929.	134	1930	J. P. Cunn
7	Some Examples of Control of Floods in Torrents in the Punjab.	150	1932	Rajbansi Lal
8	The Extension of the River Training Works at Gidarpindi Bridge.	183	1935	G.A. Plank
9	Flooding Rohtak Civil Station in September, 1933 and Measures taken for Relief and for Future Safety.	194	1936	Kanwar Sain
10	Training Works, River Control and Methods for Regulation at Rupar, Khanki, Marala and Rasul.	226	1939	B.K. Kapur
11	River Diversion at Trimmu.	229	1939	Som Nath Kapur
12	River Training and Control by pitched Islands.	275	1945	A.M.R. Montagu & H.L. Uppal
13	Principles of Wells Foundations, River Training and Protection Works.	278	1946	R.O.C. Thomson
14	Flood Control Investigation in West Pakistan.	292	1951	M.A. Rahim, I.A.Zafar & S.M. Niaz
15	Flow Lines through Embankment with Heterogeneous and Stratified Medium.	299	1952	Nazir Ahmad
16	River Training Works of Empress Bridge Adamwahan.	309	1955	M.A. Wahidi
17	Training of River Loops and Currents on Head Works.	334	1958	S. Allah Bakhsh Khan
18	Diverting River Indus Through Taunsa Barrage	343	1960	Mirza Mohammad Said
19	Diversion of Jammu Tawi Protection of Upper Marginal Bund at Marala Headworks.	349	1961	B.A. Ghani

S. No.	Title	Paper No.	Year of Publication	Name of Author
20	Artificial Cut-off at Islam Headworks.	352 (CM)	1962	Khalid Mahmood & Abdul Basit Akhtar
21	Diversion of the River Jhelum at Mangla.	372	1966	Mehtab Khan
22	Alignment and Shape of a Spur Head.	428	1975	S.M.Ayoob & Ch. Muhammad Ali
23	Wind Generated Waves and their effects on River Bunds.	436	1978	S. Mansoob Ali Zaidi
24	Design of Earthen Dikes.	439	1978	Tahir A. Malik
25	Construction and Working of Spurs for Protection of B.R.B.D. Link Canal.	444 (CM)	1980	Ahmad Tariq, Khursheed Mahmud & Riaz Ahmad
26	Construction of River Training Works on the left bank of River Ravi from Babu Sabu to Chung near Lahore.	456 (CM)	1982	S. Mansoob Ali Zaidi
27	Diversion of River Indus through Ghazi Ghat Road Bridge.	468	1985	Ghazanfar Mohammad Khan & M. Aslam Chohan
28	Warsak Dam Project Problem & Remedies.	534	1990	Izhar-ul-Haq
29	On the Flood Frequency Analysis at Important discharge Measuring Sites of Pakistani Rivers.	554	1996	Ali Rizwan & M. Azam Chaudhry
30	Flood Control Techniques for Effective Alluvial River Management.	559 (KM)	1996	Ali Rizwan , M. Azam Ch. & Salamat Ali
31	Decision Support System for Reservoir Operation to Manage Severe Floods in Pakistan.	576	1998	Shahbaz Khan
32	A Framework For Performance Evaluation of River Training Works.	585	1998	A.S. Shakir , Asrar-ul-Haq & Nasir Ali

SECTION - II (e)

HYDROLOGY AND METEOROLOGY

IIe HYDROLOGY AND METEOROLOGY

Sr. No.	Title	Paper No.	Year of Publication	Name of Author
1	Temperature Experiments at Lahore	21	1915	W S Dorman
2	Erosion in the Punjab Himalayas and its Probable Effect on Water Supplies.	135	1930	L.B. Holland & H.M. Glover
3	Rainfall Runoff	245 (CM)	1941	S.D.Khangar & N.D. Gulhati
4	Determination of Runoff from Rainfall on Punjab Torrents.	279	1945	R.B. Kanwar Sain
5	Hydrologic Data, its Importance and Collection.	282	1947	N.D. Gulhati
6	Analysis of Heavy Rainfall in Short Periods at Lahore	295	1952	S.N. Naqvi
7	Chuharkana Aquifer Test.	326	1957	Sayyid Hamid & M.S. Minhas
8	Hydrological Studies on Zhob River and Streams of the Kachhi Plain.	354	1962	Srafraz Khan Malik
9	An Estimate of Evaporation from Free Water Surface in West Pakistan.	368	1965	Nazir Ahmad, Mohammad Sarfraz & Mohammad Akram
10	A Few Suggestions to Conserve Flood Run-off and to Recover Fresh Water from the Saline Water Zones of the Indus Plains.	407	1972	Nazir Ahmad
11	Hydrologic Design of Sukh Beas Surface Drainage Project	433	1978	Mian Barkat Ali, S.N.H. Mashhadi & Maqsood Ahmed Malil
12	An Estimate of Water Loss by Evaporation in Pakistan.	453	1982	Nazir Ahmad
13	Hydrologic Evaluation of Marh-Chinniot Surface Drainage System Design.	462	1983	Saleem Bashir & N.M.Awan
14	Development of Synthetic Unit Hydrographs in small Ungauged Catchments of Pakistan.	479	1985	Mohammad Mehboob Alam
15	A Meteorological Approach to Forecast The Seasonal (Khareef) Inflow Volume For Mangla Reservoir.	583	1998	Abdul Majid

SECTION - II (f)

HYDRAULIC STRUCTURES

S. No.	Title	Paper No.	Year of Publication	Name of Author
1	The Development of Canal Fall for the Production of Artificial Fertilizers.	9	1914	B.C. Battye
2	The Design of Canal Headwork.	11	1914	F.W. Schonemann
3	Maintenance of Marala Weir.	12	1914	Cecil A. Colyer
4	Notes on Some Works on the Upper Swat Canal.	14	1914	A.J. Wadley
5	Some Practical Mathematics of Canal Works	23	1915	A.J. Wadely
6	Distributary Head and Canal Division Works.	28	1916	A.S. Gibb
7	The Design of Head Regulators of the Irrigation Distributaries.	29	1916	F.W. Schonemann
8	Canal Outlets.	36	1917	B.P. Varma
9	Experiments on Broad-Crested Weirs.	51 (CM)	1919	F.H. Burkitt
10	The Design of Regulators for Distributaries.	61	1920	W.P. Thompson
11	Silt Vanes	62	1920	H.W. King
12	Application of Modules in Irrigation.	80 (CM)	1923	E.S. Lindely
13	Notes on Aerial Photographs of Canal Works.	90	1924	E.S. Lindley
14	Principles of Design for Proportionate Flumes at Heads of Channels.	96	1925	Prabh Singh
15	Canal Falls and their Use as Meters.	97	1925	E. S. Lindley
16	Weirs and Headworks on the Sultlej Valley Project and some connected Problems.	103	1926	E.R. Foy
17	Note on Outlets and adjustable Proportional Modules.	109	1927	J.G.H. Bedford
18	Report on Flume Experiment on Sirhind Canal.	110 (CM)	1927	A.G.C. Fane
19	The Broad Crested Weir Meter	111	1927	C.A. Colyer
20	The Principles of Design of a Dissipater below a Fall.	112	1927	C.A. Colyer
21	Headless Canal Meters.	125 (CM)	1929	F.H. Burkitt
22	Energy Losses over Long Crested Weirs.	141	1930	I.D.H. Bedford & A.M.R. Montagu

S. No.	Title	Paper No.	Year of Publication	Name of Author
23	Stability of Weirs and Canal Works. An Application of the New Theory of Hydraulic Gradients.	142	1930	A.N. Khosla
24	Theoretical Design of a New Type of Outlet for Irrigation Channels.	146	1931	K.R. Sharma
25	Damaged Falls on Khadir Branch of the Pakpattan Canal.	147	1931	E.L. Prothero
26	Repairs and Remodeling of Rasul Weir, 1929-31.	155	1932	T.A. Foy
27	Pressure Observation at Jaurian and Durgai Syphons.	158	1932	P.A. Turner
28	Protection of Upstream Foreshore Mangla Regulator.	161	1933	F.F. Haigh
29	Pressure Pipe Observation at Panjnad Weir.	162 (CM)	1933	Ajudhia Nath Khosla
30	Dissipation of Energy Below Canal Falls.	163	1933	F.F.Haigh
31	Experiments with a Short Crested Weir Model.	170	1933	C.C. Inglis
32	A Study of the Flow of Water under Works on Sand Foundation by Means of Models.	173	1934	E. Mckenzie Taylor & Harbans Lal Uppal
33	On the Design of an A.P. Module.	176	1934	K.R. Sharma
34	Design of Weirs on Sand Foundations.	182	1935	F.F. Haigh
35	Pressures under a Model of Panjnad Weir and under the Prototype.	185	1935	Harbans Lal Uppal
36	A Silt Selective Distributary Head Regulator.	189	1936	K.R. Sharma
37	Electrical Method for Determining Pressure Distribution under Hydraulic Works.	190	1936	V.I. Vaidianathan & Gurdas Ram
38	Reconstruction of the Khanki Weir.	195 (CM)	1936	Ajudhia Nath Khosla
39	Deg Diversion and the Combined Headfall and Aqueduct.	204	1937	B.K. Kapur
40	A Regulation Gauge for Headless Canal Meters.	205	1937	A.N. Wilson
41	Remodeling Upper Chenab Canal Head Regulator.	210	1938	C.L. Handa
42	Silt Excluders	211 (CM)	1938	F.F. Haigh
43	Syphon under Rakh Branch for the Marh-Chiniot Drain.	213	1938	S.L. Malhotra
44	Protection Against Scour Below River and Canal Works	214	1938	H.L. Uppal

S. No.	Title	Paper No.	Year of Publication	Name of Author
45	Reconditioning Marala Weir.	215 (CM)	1938	E.O. Cox & Ganpat Rai
46	Diagrams for the Designs of an Adjustable Proportional Module.	218	1939	N.D. Gulhati
47	Sidhani Dam Bridge.	232	1940	C.L. Handa & Madan Lal
48	Improved Adjustable Proportionate Modules and Open Flume Outlets.	237	1940	K.R. Sharma
49	Construction of the Emerson Barrage at Trimmu	244	1941	S.N. Kapur
50	The Kalabagh Barrage.	251 (CM)	1942	S.I. Mahbub
51	Irrigation Outlets.	264 (CM)	1944	S.I.Mahbub & N.D. Gulhati
52	Some Aspects of the Design of Weirs or Canal Falls in Relation to Scour.	289	1951	Mushtaq Ahmad
53	Observation, Record and Analysis of Pressure Pipe Data of Weirs on Permeable Foundations.	294 (CM)	1952	Mushtaq Ahmad
54	The Design and Construction of Irrigation Structures - Some Important Factors.	304	1954	S.S. Kirmani
55	Studies in Some Hydraulic Features of the Design of Taunsa Barrage.	315.A (CM)	1956	Mushtaq Ahmad
56	Studies in Hydraulic Features of the Design of Taunsa Barrage.	315.B (CM)	1956	Mushtaq Ahmad, Abdul Latif & Ch. M. Ali
57	The Design and Construction of Deg Super Passage on Marala - Ravi Link.	317	1956	S.M. Niaz & Nafis Ahmad
58	Studies in Some Hydraulic Features of the Designs of Taunsa Barrage-Part-III.	327	1957	Mushtaq Ahmad & Mohammad Ali
59	Working the Right Bays of Balloki Barrage.	330	1958	Ahmad Tariq & Sarfraz K. Malik
60	Lessons from the Failure of Tando Masti Khan Fall.	331	1958	Abdul Latif Mirza
61	Fish Ladders of Fish Ways.	346	1961	Mushtaq Ahmad & Said Ahmad
62	Alternative Proposal for Remodeling Marala Headworks.	360	1963	H.J. Asar
63	Some Recent Trends in Barrage Design on Alluvial Rivers in Pakistan.	362	1963	Mohi-ud-Din Khan
64	Marala Headworks, Site Investigation.	364	1965	H.J. Asar

S. No.	Title	Paper No.	Year of Publication	Name of Author
65	Remodeling Balloki Headworks.	375	1966	Rana Muhammad Aslam Chohan
66	Structural Investigations of Sukkur Barrage Arches.	390 (CM)	1968	Mazhar Ali
67	Recording of Temperature Changes Inside the Concrete of Sukkur Barrage Arches.	396	1969	Nazir Ahmad
68	Rasul Barrage.	398	1971	Rana Muhammad Aslam Chohan
69	Marala Barrage Investigations for High Uplift Pressures under the Downstream Floor.	399	1971	Ramiz Ahmad Malik
70	Model Tests for Assessing the Causes of Excess Uplift Pressure under Downstream Floor of Bays No. 31-40 of Marala Barrage and Remedial Measures.	400	1971	S.M. Ayoob & Ch. Muhammad Ali
71	Design of a Two Miles Long Irrigation Tunnel for Khanpur Dam Project.	401	1971	S. Khalid Asmi & A. Aziz
72	Energy Dissipation and Expansion of Flow in Sharp Divergence Below a Flumed Flamed Fall.	405	1972	S.M. Ayoob & Ch. Muhammad Ali
73	Failure and Reconstruction of Sukhbeas Syphon on Balloki-Sulemanki Link-I.	409	1972	R.K. Anver & S.M. Ismail
74	Panjnad Headworks after 1973 Flood.	413 (CM)	1974	Muhammad Aslam Chohan
75	A Comparative Study of five Approximate Methods of Computing Uplift Pressures, Exit Gradient and Seepage Rate Under Hydraulic Structures on Permeable Foundations.	419	1974	Mushtaq Ahmad
76	Some Aspects of Hydraulics of Bridge Water Ways.	434	1978	S.M. Ayoob & Ch. Muhammad Ali
77	Remedial Measures to Rasul Barrage.	471	1985	M.R. Chaudhry
78	Remodeling Marala Barrage and Link Canal for Silt Control.	484 (CM)	1986	Rana Muhammad Aslam Chohan
79	Estimation of Maximum Discharge for Design of Hydraulic Structures.	493 (CM)	1987	Mushtaq Ahmad
80	Failure of Sukkur Barrage Gate No. 3 and Replacement Programme Study.	532	1990	M.I. Memon
81	Remodeling Bambanwala Cross-Regulator.	541 (CM)	1992	Usman Akram

SECTION - III

BUILDING AND HOUSING WORKS

Sr. No.	Title	Paper No.	Year of Publication	Name of Author
1	Grain Elevators and their Application to the Punjab Wheat Transport Problems.	1	1913	Victor Bayley
2	Open Fireplaces in Bungalows	17	1914	F.W Martin
3	Notes on Efflorescence on Buildings and Structures together with the Means of Combating.	26	1916	C.S. Wait
4	Reinforced Concrete Tanks	53	1919	R.A. Wallace
5	An Investigation and Research Institute for Public Works Department.	54	1919	F.A. Carne
6	Notes on Cracks in Buildings in Dera Ghazi Khan.	79	1923	J.H. Johnston
7	The purchase of Cement for Government Works	132	1929	A.K. Astbury
8	Influences of Surfaces for Concentrated Loads on Slabs.	159	1932	Halcro Hohnston
9	Provision for Temperature and Shrinkage Movements in Cement Concrete Structure (Plain and Reinforced).	181	1935	Kunwar Sain
10	Efflorescence in Buildings and a New Method of Cure.	222	1939	Nand Gopal & M.L. Mehta
11	Air Raid Protection for Buildings	262	1943	N.B. Shroff
12	The Planning and Design of Modern Stadiums.	333	1958	Mohammad Ashraf
13	A Study of Thermal Properties of some of the Locally Available Building Materials to Improve the Summer Comfort in Residential Buildings.	335	1958	Khan Mohammad Azam Khan & Syed Irshad Hussain
14	Construction Economy through Engineering Research and Design	345	1960	I. A. Zafar
15	Structural Analysis and Design of Multistoried Framed Buildings.	358	1963	G.D. Habib
16	Influence of Parapet Walls on the Ventilation of Roof.	361	1963	M. Hanif
17	The Sunshade Table	376	1966	Ashfaq Hasan
18	Limit State Design of Reinforced Concrete Structures.	414	1974	Khalid Mahmood

Sr. No.	Title	Paper No.	Year of Publication	Name of Author
19	A Computer Programme for Raft Analysis with Specific Reference to WAPDA House Raft Foundation.	425	1975	Javed Yunas Uppal & M. Talib Chaudhry
20	Wind Effect Study on An Ogival Masjid Dome.	438	1978	Sheikh Wajeehuddin, Bakhtiar Ali & Mohammad Azim
21	Introduction of Dry Hydrate Lime As a Building Material in Pakistan	482	1986	M. Iqbal, Ali Muhammad & K.L Khawaja
22	Automated Structured Analysis.	519	1989	M. Naimet Ullah Cheema
23	Shelter for the Shelterless. Design and Evaluation	548	1992	Gulam Mustafa Qazi
24	Post Yielding Deflection of R.C Beams	549	1992	Akram Tahir, Bilal Ahmed & Ahmad Sana
25	A Simplified Approach for the Analysis and Design of Two Way Joint Floors	567	1996	Syed Ali Rizwan & Azhar Ali Bhatti.
26	Analysis of Two Way R.C Joist Floors Having Different Configurations	569	1998	Syed Ali Rizwan, Syed Ali Debaj & Husnain Ahmad
27	Behaviour of Geometrically Imperfect Slender Steel Columns	570	1998	Syed Ali Rizwan, Syed Ali Debaj & Husnain Ahmad
28	Computer Analysis of Composite Space Structures.	571	1998	M. Ashrif, Zahid A. Siddiqi & Afzal Javaid
29	A Convenient Method for Design of Reinforced Concrete Members.	572	1998	Zahid A. Siddiqi, & M. Ashraf
30	Curve of Infinitive Plate with a Crack Lying on Elastic Base By Dynamic Loading	575	1998	Dusembayev Isim Nacievich & Travush Vladimir Llieh

SECTION - IV

WATER SUPPLY, SEWERAGE AND PUBLIC HEALTH ENGINEERING

IV WATER SUPPLY AND SEVERAGE ENGINEERING AND PUBLIC HEALTH ENGINEERING

S. No.	Title	Paper No.	Year of Publication	Name of Author
1	Sialkot Water Supply	34	1917	E.S. Heard
2	Mechanical Filter Installation at Jammu.	46	1919	P.G. Dani
3	Railway Water Supplies	56	1920	C.B. Barrie
4	Water Supply Improvements	75	1922	E. Cathrow
5	Notes on Location of a Burst Main.	81	1923	W.E. Buchanan
6	The Construction of the Rawalpindi City Water Supply Extension Scheme	104	1926	J.A.R. Bromage
7	The Metering of Water Supplies	105	1926	W.E. Buchanan
8	Water Supplies to Town in Canal Colonies.	118	1928	J.A.R. Bromage
9	Locomotive and Drinking Water Supply on the North Western Railway	131	1929	J.Vardon
10	Material and Construction of Trunk and Distribution Pipe line for Water Supply Using Metal Pipes.	143	1931	D.A. Howell
11	Pipes and Fittings Used in Water Service to Buildings	164	1933	J.A.R. Bromage
12	The Water Supply of the Sun Eclipse Fair at Thansesar	220	1939	D.A. Howell
13	Sub-Aqueous Construction Methods Adopted during the Execution of the Lahore Sewerage Scheme	298	1952	S. Irshad Hussain
14	Rational pattern of Sewerage and Waste Disposal in Pakistan Part-I	348	1961	Sheikh Abdur Raoof & Sheikh Rafi Ahmad
15	Financial Planning of Water Supply Schemes	371	1965	Iqbal Ahmad Beg
16	Design Aspect of Municipal Water Supply Pilot Projects	393	1969	Syed Arshad Ali
17	Design Standards for Water Supply Schemes in Pakistan	418	1974	Iqbal Ahmad Beg
18	Supply of Drinking Water to Rural Population	448	1980	A.N. Cheema
19	Socio-Economic and Financial Aspects of International Water Supply and Sanitation Decade for Pakistan	466	1983	Masih Ullah Khan
20	Comprehensive Sewerage and Drainage Scheme Multan	499	1987	Syed Zia-ul-Hasan

S. No.	Title	Paper No.	Year of Publication	Name of Author
21	Waste Water Treatment and Re-use in Irrigation	501	1987	Mian M. Amin
22	Upgrading and Rehabilitation of Sewerage System	508	1989	Mian M. Amin
23	Appropriate Technology Options for Waste Water Treatment in Tropical Development Countries	530	1990	Mian M. Amin
24	A Study of Problems of Water Supply and Drainage of Lahore Zone using the Numerical Modeling	531	1990	Nazir Ahmad & M. Akram
25	Biodiversity and Species Extinction	591	1998	Javed A. Aziz
26	Application of Clean Industrial Waste Pollution Control	592	1998	Javed A. Aziz
27	Treatment Options for Wastewater Re-use	594	1998	Javed A. Aziz

SECTION - V

TRANSPORTATION AND COMMUNICATION

SECTION - V(a)

HIGHWAYS AND ROADS

S. No.	Title	Paper No.	Year of Publication	Name of Author
1	The Hindustan-Tibet Road	8	1914	A.R. Astbury
2	Highways in the Punjab, Past and Future	45	1919	W.S Dorman
3	Wet Soils and their Behaviour under Loads	63	1920	Iqbal Hussain
4	Grades and Curves on Hill Roads	64	1920	A.R.B. Armstrong
5	A Few Aspects of the Punjab Road Transport Problem	65 (CM)	1920	K.G Mitchell
6	Aerial Ropeways.	70	1922	F.N Budden
7	Supply of Road Metal in the Punjab	71	1922	G.T. Pound
8	Notes on Exhibit of Road Transport Vehicles and other Plants	76	1922	W.S. Dorman
9	Modern Road Construction	106	1927	G.T. Pound
10.	The future of Communications in the Punjab	122	1928	H.L Woodhouse
11	Bituminous Road Construction in the Punjab.	123	1928	W.S. Dorman
12	Earth Roads	137	1930	S.G. Stubbs
13	The Chakki-Dalhousie Road	171	1934	J.Halcro Johnston
14	Super Elevation on Highway Curves	180	1935	Murari Lal
15	Re-conditioning of Kankar Roads	191	1936	B. Mohan Lal
16	Concrete Trackway on Lahore-Multan Road (Arterial No.4) Mile 2 and 3 in Lahore District	193	1936	Bhikam Singh
17	The Road to Kulu	200	1937	J.Halcro Johnston
18	Experiments of Premix Work in Mile 35 G.T Road	207	1937	Murrari Lal
19	Construction of a Concrete Track in Miles 306-310 G.T. Road (Near Lahore).	224	1939	D.P. Nayyar
20	Intensity of Traffic on Punjab Roads.	225	1939	B. Mohan Lal
21	Some Modern Bituminous Resurfacing Methods	246	1941	Murari Lal
22	Soil Stabilization as Applied to Roads in India	256	1942	S.R. Mehra
23	Construction of a Motor Road around Simla India.	261 (CM)	1943	W.A.R. Baker & Balwant Singh
24	Construction of Aerodromes in the Punjab	270	1944	A.R. Khanna
25	Modern Features of Road Design	273	1945	W.A.R Baker
26	Recent Road Construction and proposed Future Development in the Punjab	274	1945	Brij Mohan Lal & R.N. Dogra

S. No.	Title	Paper No.	Year of Publication	Name of Author
27	Damages caused on Kangra Valley Road by Floods of August 1944 and their Restoration	281	1946	R.L. Sondhi & G.C Khanna
28	Cheap Specifications Adopted for the Construction of Multan-Bosan Road	296	1952	G.D. Habib
29	Some Aspects of Design of Flexible Pavements in West Pakistan.	340	1959	Mazhar-ul-Haq & Saeed Ahmad
30	Highway Financing in Pakistan	370	1965	Saleem Akhtar Bhalli & Muzaffar Iqbal Sheikh
31	Experimental Use of Hydrated Lime in Road Construction	383	1968	Tajamal Hussain Qureshi & Hashmat Ali
32	Road problems in Slip Affected Areas	386	1968	M.A. Waheed & Muzaffar Iqbal Sheikh
33	Crushed Brick in Road Construction	388	1968	Mazhar-ul-Haq & Saeed Ahmad
34	Surveying and Mapping for Road	404	1971	Saleem Akhtar Bhalli
35	Modern Practice in Surface Dressing	411	1972	Abdus Salam
36	A Review Report on Collapsible Soils for the Design and Construction of Roads	415	1974	Syed Fayyaz Ali Shah & Hashmat Ali
37	Traffic Organization in Pakistan	427	1975	M Sadiq Swati
38	Third IRBD Highway Project	455	1982	E.I. Johri
39	Methodology of Construction of Hot Mix Asphalt Paving & our Experiences-Execution of Lahore-Pathoki section of Third Highway Project.	474	1985	Ch. Ghulam Hussain & Raja Karamat Ullah
40	Road Safety in Developing Countries	475	1985	M. Sadiq Swati
41	Trial of Sand Bitumen Mix Pavement on Naukot Mithi Road (Sind)	498	1987	Sajjad Haider
42	Geometric Design of Faizabad Interchange	544	1992	E.I. Johri
43	Methodology for Improvement of Capacity of Urban Roads	563	1996	E.I. Johri
44	The Incidence of Rutting on Bituminous Roads	565	1996	Shaukat Ali
45	Rutting of Bituminous Concrete Pavements	596	1998	Zubair Emran Khawaja
46	New Transport Policy in Asia for Poverty Alleviation and Pakistan's Role in its Implementation.	606	1998	Mohi-ud-Din Khan

SECTION - V(b)

RAILWAYS

RAILWAYS

S. No.	Titile	Paper No.	Year of Publication	Name of Author
1	Concrete Work in Loco Shops Lahore	5	1913	J.A. Bell
2	Reinforced Concrete Platforms for Carriage Washing at Lahore Station.	19	1915	E.P. Anderson
3	Liquid Fuel Installation at Kotri North Western Railway.	55	1920	N. Pearce.
4	The Electrical Equipment of the North Western Railway Power Station and Workshops at Moghalpura.	73	1922	K. Preston.
5	Temporary Quarters: No. 1 Division Khyber Railways.	84	1924	E.P. Anderson
6	Economic Railway Construction	86 (CM)	1924	E.P. Anderson
7	Some Aspects of Track Maintenance and Permanent way of the North Western Railway	87	1924	E. Watson
8	A Descriptive Note on the North Western Railway Creosoting Plant at Dhilwan	99	1926	Wazir Singh Aggarwal
9	Cheap Feeder Railway of 5 feet 6 inches Gauge, Bahawalnagar Cholistan Railway	115	1928	T.N. Kunzru
10	The Survey and Construction of the Kangra Valley Railway	136	1930	R.D. Waghorn
11	Methods of Calculation and Analysis of Structures Employed on the North Western Railway.	149	1931	R.B.P.L. Dhawan
12	A note on the Building of Two Reinforced Concrete Box Culverts on N.W.R.	202	1937	S.L. Kumar
13	Some Notes on Gunite and its Uses on Certain Works on N.W.R.	203	1937	S.L. Kumar
14	Rail and Road Competition.	219	1939	F.R. Hawkes
15	Investigations of New Railway Scheme	247	1941	K.B. Nizam-ud-Din
16	Chief Considerations Affecting the Design and Usage of Railway Sleepers in India	267 (CM)	1944	S.L. Kumar
17	Design of Rails	280	1945	R.P. Lall
18	Improvements to Delhi and Lahore Stations	286	1947	Y.P. Kulkarni & Gurdial Singh
19	Electric Traction on Pakistan Western Railway	373	1965	S.H. Nawab

S. No.	Titile	Paper No.	Year of Publication	Name of Author
20	A study of the Effect of Suspension Parameters of Ride Index of a Railway Vehicle and Results of Trials on the Pakistan Western Railway	377 (CM)	1965	M.Z. Mozaffar
21	Inimunization of Signaling Equipment in Connection with Electrification of Lahore - Khanewal Section of Pakistan Western Railway	387	1968	M.H. Bhair
22	Railway Electrification (Power Supply System)	392	1969	F.A. Hamdani
23	Role of Management, Training and Research in Rail-Road Operations	450	1982	Mian Ghias-ud-Din
24	A study on Dieselization of Sibi-Khost Section with GEU-15 and GMU - 15 Group-IV Locomotives.	459 (CM)	1983	Mian Ghias-ud-Din
25	Transport Options for Development Countries	480 (CM)	1986	Mian Ghais-ud-Din
26	Un-exploited Available Potential for Higher Train Speeds	497	1987	M. Amir Chaudhry
27	Energy Conservation by Improving Locomotive Utilization.	535	1990	M. Aurangzeb Khan
28	Privatization of Transportation Infrastructure in Developing Countries	566	1996	M. Mursaleen
29	Concept of Rapid Intercity Train Service for Passenger Traffic on Pakistan Railways.	595	1998	Abdul Qayyum

SECTION - V(c)

BRIDGES

S. No.	Titile	Paper No.	Year of Publication	Name of Author
1	Reinforced Concrete Pile Foundation in the West Beyne Bridge	6	1913	E.A.C Lister
2	Notes on the New Road Bridge over the River Ravi at Lahore	16	1914	D. Macfarlane
3	The Construction of Double Track Girder Bridge across the Jumna River on the North Western Railway between Kalanour and Sarsawa	18	1915	A.I. Sleigh
4	The Testing of Bridges	25	1916	H.H.S Sales
5	Shortening the Alexandra Bridge over the Chenab River near Wazirabad	58	1920	F.C Pavry
6	Ferro-concrete Well Curbs and Roadway Slabs used on the Chenab Bridge	59	1920	A.R.B. Armstrong
7	The Design and Construction of light Suspension Bridges	69 (CM)	1922	A St. G. Lyster
8	Notes on the Design of Girder Bridge Abutments for Broad-Gauge (5' 6") Tracks	85	1924	N.G. Watson
9	The Construction of the Road Bridges over Chenab and Palkhu at Wazirabad	93	1925	W.S. Dorman
10	Analysis of Partly Stiffened Suspension Bridges, Type No. 2F	94 (CM)	1925	J. Halcro Johnston
11	Reinforced Concrete Bridges on the Sirhind Canal	120	1928	AGC Fane
12	Reinforced Concrete Through Roofing.	121	1928	A N Khosla & Kanwar Sain
13	Recent Practice in Girder Erection on the North Western Railway	144	1931	C.F. Carson
14	Construction of a Railway Bridge over the River Indus at Kalabagh	145 (CM)	1931	W.D McD Criuickshank
15	Girder Erection in the DcMontmorency Bridge across the Jhelum River at Khushab	156	1932	J.R. Simpson
16	The completion of Kalabagh Bridge	157	1932	P.C. Judges
17	Description of Several Unusual Structures Adopted in Bridge Construction	160	1933	W.T. Everall
18	Metallic Arc Welding as Applied to Bridge and Allied Structures with special reference to the North Western Railway	174 (CM)	1934	W.T. Everall & PSA Berridge
19	Two notes on Grouting Applied to Bridge Work	175	1934	J.D. Watson

S. No.	Titile	Paper No.	Year of Publication	Name of Author
20	The Construction of a Reinforced Concrete Bridge on the Grand Trunk Road over the Bhimbar Nullah in Gujrat District on Vibro-Pile Foundation	177	1934	P.L. Varma
21	Replacement of Gallery No. 826 on the Kalka-Simla Railway by a Steel Trestle Bridge	179	1935	W.A. Anderson
22	Raising of Jhelum Bridge	199	1937	T Melntyre
23	Re-flooring the Sukkur Channel Bridge	223	1939	S.L. Kumar
24	Construction of a Road Bridge over the Sohan at Dhok-Pathan	241	1941	G.R. Nangea
25	Waterway required under Bridges with Special Reference to the Rohi Beas Bridge on N W R	254	1942	Karnail Singh & Gurdial Singh
26	Restoration of Flood damages to the Deg Nullah Bridge	308	1954	S Mukhtar Ahmad
27	Influence line for Continuous Concrete Bridges	324	1957	A.A. Jamal-ud-Din
28	Regirdering Ravi Bridge at Abdul Hakim	332	1958	Ghulam Sarwar
29	Prestressed Concrete Road Bridge at Wazirabad	353	1962	Mohammad Aslam
30	Design of a New Road Bridge over Jhelum River near Jhelum	367	1965	Abdus Salam
31	Design and Construction of Chichawatni Bridge	385	1968	Abdus Salam & S.U. Qureshi
32	Design and Construction of Sutlej Bridge	397	1969	Abdus Salam & Abdul Waheed Ch.
33	Proposed Revisions to the Paksitan Highway Code for Seismic Design of Reinforced Concrete Bridge Piers	561	1996	M Tariq Amin Ch.
34	Segmental Cantilever Bridges at Karote and Kohala	573	1998	Sameer Z. Khan

SECTION - V (d)

NAVIGATION

S. No.	Titile	Paper No.	Year of Publication	Name of Author
1	The relativity of Navigation and Engineering Science	100	1926	P Claxton
2	Inland Navigation in West Pakistan. A Few proposals	359	1963	Mohi-ud-Din Khan
3	A Feasible Inland Navigation Route from Kalabagh to Port Qasim.	515	1989	Mohi-ud-Din Khan

SECTION - VI

POWER - HYDRO, NUCLEAR, THERMAL, OIL, GAS AND COAL

VI POWER-HYDRO NUCLEAR, THERMAL, OIL, COAL AND GAS

S. No.	Title	Paper No.	Year of Publication	Name of Author
1	A Project for Providing the Punjab with a Cheap Supply of Electric Power	50	1919	F.L. Milne
2	Some Problems of High Voltage Transmission in the Lower Himalayas	77	1923	B.C. Battye
3	Low Fall Hydro-Electric Power Illustrations	88	1924	J Ashford
4	Construction Plants and Methods used on the Uhle River Hydro-Electric Project.	133	1930	B.C. Battye
5	Tunneling in Connection with the Uhle River Hydro-Electric Project.	153 (CM)	1932	G.H. Hunt, R.D. Keane, & N.V. Dorrofeeff
6	Pipe Line Penstock, Pipe Tunnels & Surge shaft on the Mandi Hydro Electric Scheme, Punjab, India	196	1936	N. Baddington
7	Fundamentals of rate fixing for Electrical Undertakings	208	1938	H.P. Thomas
8	Electric Transmission Tower	258	1942	R.C. Talwar
9	Planning Hydro-Electric Development in Pakistan	297	1952	S.S. Kirmani
10	General Design Principles and Preliminary Selection of Turbine Units for a Low Head Hydro-Electric Development	306	1954	Muhammad Nazir
11	Foundation Investigation and Salient Features of the Design of Chichoki Power House Raft.	316	1956	S. Irshad Ahmad & Jamil Asghar
12	Village Electrification Through Micro-Power Plants on Canal Falls	366	1965	Mohi-ud-Din Khan
13	Determination of Firm Generating Capacity.	380	1965	A Rahimtoola
14	WAPDA Northern Grid System Need for peaking Generating Capacity 1970-75	381	1968	A Rahimtoola
15	West Pakistan 500 KV Super Grid	402	1971	Mahmood Ahmad Cheema
16	Distribution System Protection and safety.	403	1971	Javaid Akhtar
17	Case Study on Use of Natural Gas for Power Generation in Pakistan	408	1972	A.U Loan
18	Problems of Medium Voltage Earthing Practice in a Developing Power System	412	1972	Mian Fazal Ahmad
19	Variation of Loss with Specimen size of Alcomax III at 50 Hz Excitation	422	1975	Pervaiz Rashid

S. No.	Title	Paper No.	Year of Publication	Name of Author
20	An Appraisal of Rural Electrification in Pakistan	429	1975	Mian Fazal Ahmad
21	Comparison of Load following Capabilities of various types of Commercially Proven Nuclear Power Plants and their Impacts on the Grid System Reliabilities	442	1980	S.M. Bhutta & IRFR Vanmassenhove
22	Addition to Guddu Thermal Power Station	451	1982	M Hussain Ali
23	Selection of Busbar Schemes for Grid Stations. A Mathematical and Graphic Approach	463	1983	Muhammad Irfan Akhtar
24	Pumped Storage as Peaking Station in An Interconnected Grid System	464	1983	Daud Beg
25	Transformer Losses Evaluation Factors for the Generator Transformer of Proposed Kalabagh Hydro-Power Station.	477	1985	Muhamamd Irfan Akhtar.
26	Combating High Sulpher in the Coal at Lakhra Power Plant	492 (CM)	1987	Ghulam Murtaza Ilias
27	Utilization of Bubbling Fluidized Bed Combustion Technology for Lakhra Coal	506	1989	M.H. Masud Butt
28	A Plan for Self-sufficiency in Power for Pakistan	537	1990	Mohi-ud-Din Khan
29	Emergency Plan for Rapid Development of Water Resources and Overcoming Power Load Shedding	551	1992	Mohi-ud-Din Khan
30	Surge Transfer Behaviour of Power Transformers	597	1998	Suhail Aftab Qureshi & Humayun Pervaiz

SECTION - VII

TUBEWELLS AND MACHINERY

S. No.	Title	Paper No.	Year of Publication	Name of Author
1	The Mechanical Equipment of Irrigation Works	7	1913	John Ashford
2	Tube-Wells	10	1914	T.A Miller-Brownlie
3	Water Supply from Tube-Wells	39	1918	T. A. Miller-Brownlie
4	Notes on Tube-Wells	40	1918	John Ashford
5	Tubewell in Borstal Central Jail Garden at Lahore	57	1920	W.S. Dorman
6	Draglines and Development of the Single Bucket Excavator	91	1925	R Hackney
7	Some experiences with Dragline Excavator	92	1925	R.P Hadow
8	Some Experiences with Diesel Dragline Excavator.	116	1928	J.D.H. Bedford
9	The Tubewell practice of the Public Health Circle P.W.D. Punjab	129	1929	D A Howell
10	Some Interesting Tubewells on the North Western Railway	139	1930	J Vardon
11	Tubewells on Zhob Valley Railway, Baluchistan	152	1932	J Vardon
12	The Selection of Electric Motors and Control Gear for Industrial Use	186	1935	M.F. Thompson
13	The Karol Tubewell Scheme	248	1941	H.L. Vadhera & A R Talwar
14	Present knowledge about factors influencing the design of a tubewell	287	1951	Nazir Ahmad
15	Planning of Tubewell Projects	314	1955	I.A. Zafar
16	Pumping Installation for the Warsak Lift Irrigation Scheme.	374	1966	Khan Sarwar Jan Khan
17	Selection of Hydraulic Machines for SCARP Tubewells	423	1975	Sardar Allah Bakhsh & Akmal Hassain
18	Economics of Mechanization with Reference to Earth moving operation in Pakistan	424	1975	Sh. Nisarul Haque.
19	Water Table Depletion, Non-Steady Flow to Wells, Effects of Soil Evaporation	443	1980	Muhammad Saleem
20	External Pressurized Gas Journal Bearing and their use in High Technology and some Performance Characteristics	552	1992	M. Uneeb, I.A. Chaudhry & R. Gohar

SECTION - VIII

CONSTRUCTION

Sr. No.	Title	Paper No.	Year of Publication	Name of Author
1	A Description of the Erection and Operation of Sliding Forms in Grain Elevator Construction.	66	1921	J.K. Wyman
2	The Use of Mud in Building Construction.	74	1922	D. Macfarlane
3	Notes on the Rusting of Steel in Contact with Lime Mortar	82	1923	A R Astbury
4	Tests carried out on Sand from the Sutlej River and Punjab Portland Cement	83	1924	ANM Robertson & A. Weighall
5	Portland Cement	113	1927	Campbell Gray
6	Report on Tensile Tests of Various Mortars.	114	1927	C.E. Blaker
7	Underpinning Satghara Rest House.	148	1931	K.R. Sharma
8	Quetta Reconstruction Progress 1935.	206	1937	N. Baddington
9	Earthquake Reconstruction in North Bihar.	217	1938	A. St. G. lyster
10	Construction of Cement Factory in Patiala State	239	1940	H. Holman
11	Rational Concrete Mixes Compared to Arbitrary Mixes Using Typical Punjab River Sand and Gravel.	250	1941	H. Holman
12	Construction of Storage Bins in the Punjab.	283	1947	D.P. Nayyar
13	Some Salient Features of the Construction of Nishtar Medical College and Hospital at Multan.	303	1954	G.D. Habib
14	Use of Pre-concreted Reinforcement in Slabs.	328	1958	Khan Muhammad Azam Khan
15	Construction of Prilling Towers with Slipform at Pakarab Fertilizers Factory, Multan.	437	1978	Mian M. Hanif
16	Pre-fabricated Gypsum Boards	441	1980	S. Sibtul Hassan Shah & Ali Muhammad
17	Management of Engineering Projects.	496	1987	B.A Chaudhry
18	Roller-Compacted Concrete and its Applications.	533	1990	S. Mansoob Ali Zaidi
19	Modeling and Design of Construction Process of Operations.	536	1990	S. Mansoob Ali Zaidi
20.	Prevention of Salt Attack by using Pozzolanic Admixtures	574	1998	Rana Nisar Ahmad
21	Evaluation of Completed Contracts for Future Pre-qualification of Contractors	587	1998	Daud Nasir Fakher Raza

Sr. No.	Title	Paper No.	Year of Publication	Name of Author
22	Causes of Delay in the Construction Industry of Pakistan.	588	1998	M. Munir Ali & Riaz Ahmad Goraya.
23	Towards Total Quality Management Control (TQM) for construction in Pakistan	589	1998	M. Munir Ali & Riaz Ahmad Goraya.
24	A review of parameters influencing the Performance of Tunnel Boring Machines	603	1998	Saad N. Cheema & Jamal Rostami
25	Criteria for Selection and Application of TBMs in Tunneling Projects	604	1998	Saad N. Cheema & Jamal Rostami

SECTION - IX

GEOTECHNICAL

Sr. No.	Title	Paper No.	Year of Publication	Name of Author
1	Theory of Earthquake Resisting Design with a Note on Earthquake Resisting Construction in Baluchistan.	165	1933	S.L. Kumar
2	Soil Compaction as Applied to Airfield Construction and Stability of Runway Slabs in High Spring Level Areas.	269	1944	C.L. Handa
3	Development of Foundation for Transmission Line Towers.	318	1956	R.A. Sheikh
4	Rawalpindi Earthquake Feb 14, 1977	435	1978	N Z Adhami & Mansur Ahmad
5	Improvement of Bearing Capacity for Foundations of Kotri Gas Turbines Extension Project.	460 (CM)	1983	M.R. Chaudhry
6	Optimum Moisture Content as Related to Grain Size of Cohesive Soils.	486	1986	I. H. Hamdani
7	Use of One-Point Proctor Standard Compaction Method for Computing Modified Ashto Compaction Parameter.	502	1987	I. H. Hamdani
8	A Computerized One-Step Cut-Flow Method for Measurement of Soils Water Diffusivity.	509	1989	Zia-ul-Haque
9	Determination of Cohesion and Angle of Internal Friction of Partially Saturated Soil From Stress Strain Model.	517	1989	I. H. Hamdani
10	Performance of Life lines during recent Earthquakes .	564	1996	M Tariq Chaudhry

SECTION - X

INDUSTRIES

Sr. No.	Title	Paper No.	Year of Publication	Name of Author
1	Modern System of Training Artisans and Technical Personnel.	266	1944	H.B. Adams
2	Corrosion Control Investigation at Attleboro, Massachusets (USA).	288	1951	Irshad Hussain
3	Engineering planning for Industrial Development in Pakistan	300 (CM)	1952	I. A. Zafar
4	A Steel Industry for Pakistan - An Appreciation	382	1968	S. Shafqat Ali
5	Towards Higher Productivity	421	1975	Aman-ullah Khan
6	Controlling Marine Befouling.	432	1978	Amjad Pervez Sheikh & Ch. M. Abdullah
7	Mass Balance Calculation Method in Methane Steam Reforming.	513	1989	Zulekha Soomro
8	Steam Reforming Propane Over a Nickel-Alumina Catalyst.	514	1989	M. Yaqboob Soomro & Zulekha Soomro
9	Cheapest Method of Steel Production.	521	1989	J. K. Jafferi
10	A Comparative Study of Sm-Co S Nd-fe-B Permanent Magnets.	547	1992	A. Ahmed & G.A. Awan
11	Engineering Industry, Problems and Prospects.	562	1996	S. M. Naqi
12	Minimizing Flow time Genetic Algorithms in Machine Scheduling	600	1998	Nasir Hyat & Andrew Wirth
13	Injection Moulding of CO-CR-MO Alloy Powder	601	1998	M.Y. Anwar, H.A Davies & P.F. Messer
14	Processing of North Waziristan Copper-Sulfide Ore and Prospects for the Establishment of a Concentrate Plant	602	1998	M. Mansoor Khan, Khan Gul Jadoon, Ehteshamullah Khan & Mazhar Rafiq

SECTION - XI

MISCELLANEOUS

XI MISCELLANEOUS

Sr. No.	Title	Paper No.	Year of Publication	Name of Author
1	Research and Investigation Section for the Public Works Department.	20	1915	Cecil A. Colver
2	The Extension of American Cotton Cultivation under Irrigation in the West Punjab and Sind	37	1918	W Roberts
3	Note on Organization of the Government School of Engineering Punjab, Rasul	107	1927	C.E Blaker
4	The Sudan Public Works Department	117	1928	D. Macfarlane
5	Punjab Timber and Methods of Extraction	130	1929	H.M. Glover
6	Use of Bibliography in Engineering	166	1933	A.M.R Montagu
7	An Outline of Town Planning	238	1940	U.A Coates
8	The Engineering Side of Fire Fighting	243	1941	Hukam Singh
9	The Engineering Profession in Pakistan	365 (CM)	1965	S.S. Kirmani
10	The Need for a Sound Housing Policy in West Pakistan	379	1966	S. Sibtul Hassan
11	Dominant Problems in the Design of Harbour Structures on Mekran Coast.	416	1974	Javed Yunas Uppal & Izzat Ullah Sheikh
12	Public Sector. Its Organization and Management.	417	1974	Amanullah Khan
13	Problems and Needs of Engineering Education in Pakistan	420	1975	M. Islam
14	Break through in Development an Imperative for Pakistan's Future	426	1975	Imtiaz Ali Qazilbash
15	Some Problems of Technology Transfer	430	1975	Masood Hasan
16	Fading on Indus Valley Microwave Link	447	1980	Muhammad Javed
17	Utilizing Gypsum for the Agricultural Development of Pakistan	457	1982	Amjad Parvez Sheikh
18	Obtaining Results from Research and Development - Some Requisites	467	1983	Masood Hassan
19	Some Aspects of Planning	476	1985	Masood Hassan
20	Development of Lahore at West Bank of Ravi.	483	1986	Javed Yunus Uppal
21	Development of Cholistan.	503	1987	Rao Riaz-ur-Rehman, Ghulam Ahmad Asgher & C.M. Ashraf
22	Technician Education in Development Countries.	504	1987	Shafqat Hussain Qureshi

Sr. No.	Title	Paper No.	Year of Publication	Name of Author
23	Future of Science and Technology in Pakistan.	507	1989	A. R. Memon
24	Digital World	510	1989	Khalid Jalil
25	Measurement of Inelastic Deflection by Laser Speackle Technique.	539	1992	Akram Tahir, Bilal Ahmed & Ahmed Sana
26	Microprocessor Controlled Robot Arm for Light Engineering Tasks.	546	1992	Israr Ahmed Chaudhry & Tariq Mehmood
27	Design, Principle and Uses of Tensiometers	586	1998	Zia-ul-Haque & Gul M. Shah
28	Biological Nutrients Removal Application of Software Package for Plant Design	590	1998	Bushra Waheed & John P. Barford
29	Global Warming	593	1998	Javed A. Aziz
30	Subcube Migration in Multistage Interconnection Networks (Part-I)	598	1998	M Naeem Ayyaz
31	Subcube Migration in Multistage Interconnection Networks (Part-II)	599	1998	M Naeem Ayyaz
32	Noise Pollution and its Environmental Impacts	605	1998	Khurshid Ahmad

SECTION - XII

PAPERS PRESENTED IN SYMPOSIA 1957-1999

VOLUME - I

HOUSING PROBLEMS OF WEST PAKISTAN
February, 1957

Sr.No	Title	Name of Author
1	Introduction to Housing Problem	S.A. Rahim
2	Social Aspects of Housing	M.H. Shah
3	Some Financial and Administrative Aspects of Housing	Khan Bashir Ahmad Khan
4	Slum Clearance	Irshad Ahmad
5	Urban Development in West Pakistan	Mazhar Munir
6	Aspects of Rural Housing	Muhammad Afzal Khan
7	Building Materials	A.A. Jamaluddin
8	Low Cost Houses	Ghiasuddin Habib
9	Essential Services and Development Cost	Mukhtar Ahmad
10	Principles of Architectural Designing	Naseeruddin Murat Khan

VOLUME - II

FLOODS IN WEST PAKISTAN
February, 1958

11	Causes of Floods in the Indus Basin	S.N. Naqvi
12	Forecasting	Wirasat Ullah Khan
13	Effects of Floods and Remedial Measures Suggested	Mian Alim-ud-Din
14	Effect of Floods on the Economy of the Country	Abdul Aziz Anwar
15	Effect of Floods on Communications:- a) Roads: b) Railways:	A.A. Jamaluddin & M.M. Zubair
16	Prevention and Control of Floods	Mian Muzaffar Ahmad
17	Soil Conservation - A Measure of Flood Control	H.J. Asar
18	Disposal of Floods	Sardar Allah Bakhsh

Sr.No	Title	Name of Author
19	Forestry in Relation to Flood Preservation and Control in West Pakistan	Muhammad Ihsan-ur-Rehman Khan
20	Impact of Floods in Water Resources Development	I.A. Zafar
21	Floods in the Arid Zones of West Pakistan	G.A.N. Starmans
VOLUME - III **WATERLOGGING & SALINITY IN WEST PAKISTAN** **February, 1959**		
22	The Drainage	M. Saeed Minhas
23	A Correlation of Resistivity Variations in Saline and Non-Saline Water Bearing Formation.	R.A. Shamsi
24	Application of Electrical Resistivity Method to Investigate Sub-Surface Geology with Special References to Hafizabad Reclamation Area.	Maqsood Ali Shah Gilani
25	A New Conception on the Waterlogging and Salinity Problem of Rechna Doab	Nazir Ahmed
26	Physiolographic History of Land Formation in West Pakistan	Syed N.A.Z. Hussaini
27	Economic Effects of Waterlogging and Salinity in West Pakistan	Aziz A. Anwar
VOLUME - IV **ENGINEERING EDUCATION IN PAKISTAN** **February, 1960**		
28	Ideals for Engineering Education in Pakistan	Mubashir Hassan
29	Education and Training in Engineering Colleges	Akmal Hussain
30	Proposal for a Pakistan College of Mines	Robert. L. Burns
31	The Place of Workshop Practice in Engineering Education	William Arther Mellors

Sr.No	Title	Name of Author
VOLUME - V **PLANNING AND EXECUTION OF ENGINEERING PROJECTS IN PAKISTAN** **March, 1961**		
32	Role of Research in Engineering Projects	Mushtaq Ahmad
33	Design Office-Practice	Mohi-ud-Din Khan
34	Engineering for Modern Contracts and Construction	Daren G. Theil
35	Mechanization of Construction Operations	Mian Masud Ahmad
36	Consulting Engineering Practice in Pakistan	I.A. Zafar
VOLUME - VI **SEDIMENTATION PROBLEMS AS A RESULT OF INDUS BASIN WORKS** **April, 1962**		
37	The Sedimentation of Mangla Reservoir	Binnie and Partners
38	The Sediment Problems on the Indus at Tarbela	John B. Drisko
39	Silt Trap Efficiency of Reservoirs with Special Reference to Tarbela and Mangla Dams.	Nazir Ahmed
40	Reduction of Mangla Reservoir Sedimentation	James C. Ringenoldus
41	Silt Trapping Efficiency of Vegetative Cover in Catchment Area	Amir Ahmad Khan
42	Sediment Problems in the Indus Basin Part II, Sedimentation in River Channels and Flood Ways Regime as a Result of Link Canals.	S.S. Kirmani
43	Changes in River Regime as a Result of Link Canals	R.K. Levis
44	Some Salient Features of Silt Ejector in an Alluvial Channel Based on Hydraulic Model Studies	Mushtaq Ahmad & Muhammad Ali

Sr.No	Title	Name of Author
45	A Review of Sediment Problems and Possible Solutions	V.A. Koelzer & Marcel Bitoun.
46	The Present and Future of Silt Excluding Devices	Mohi-ud-Din Khan
47	Sampling and Analysis Technique for Suspended Sediment	M.M. Sadiq.
VOLUME - VII		
	WATERLOGGING AND SALINITY IN WEST PAKISTAN	
	October, 1963	
48	History and Magnitude of Waterlogging and Salinity Problems in former Punjab, West Pakistan	M.A. Lateef & R.A. Shamsi
49	Salinity and Ground Water Conditions in the Lower Plains, Sukkur-Guddu Right Bank and Khairpur-Lower Indus Project	T.N. Jewitt
50	Waterlogging and Salinity and Factors Limiting Agricultural Production in West Pakistan	Muhammad Hussain & Nur-ud-Din Ahmad
51	Sodium Hazard of Punjab Ground Waters	C.A. Bower & M. Massland
52	Results of Geologic and Ground Water Investigations in the Punjab Plain, West Pakistan.	Z.U. Kidwai
53	The Programme of Investigations in the former Sind	A.P.S. Forbes, G.R. Haffman & M. MacDonald
54	Economic Investigation as related to Drainage with Special Reference to Khairpur	P.E. Nayior
55	WAPDA Programme of Waterlogging and Salinity Control for West Pakistan	M. Badr-ud-Din
56	Development of Ground water in the Indus Plains	M. Maasland, J.E. Priest & M.S. Malik

Sr.No	Title	Name of Author
57	Conjunctive Use of Surface Water and Ground Water Supplies in the Principal Canal Irrigated Areas of West Pakistan	Charles S. Hazen
58	Review of Reclamation Activities and Methods and Suggested Measures for Waterlogging and Salinity Control.	Muhammad Hussain & H.A. Nishat
59	Efficiency of and Dependence on Tubewells as a means of Providing Additional Supply Necessary for Controllng Salinity and Reclaiming waterlogged Areas.	Sarwar Jan
60	A Study of the Rise of Ground Water and its Salinity in the Irrigated Areas of Indus Plains.	Nazir Ahmad
61	Performance of Salinity Control and Reclamation Project No. 1 Rechna Doab	Shamim Ahmad, H.S. Zaidi & Badr-ud-Din.

VOLUME - VIII

CONSULTING AND CONTRACTING PRACTICES IN PAKISTAN

March, 1965

62	Consulting and Contracting Practices in Pakistan	B.M. Abbas
63	Consulting and Contracting Practices in Pakistan	A.V. Karpov
64	Engineering Resources of Pakistan	A.A. Abidi
65	Consulting and Contracting Practices in Pakistan	G.H. Vaughan Lee
66	Considerations in the Establishment of a Pakistan Association of Consulting Engineers	G.T. Macarthy
67	Consulting Services	Khawaja Azeem-ud-Din
68	The Role of Private Consulting Firms in Modern Water Resources Development	E. Montford Fucik
69	Administration of Large Contracts	J.R. Gwyther
70	Construction Contractors and Law	S.M. R.Abidi
71	Contracting Practice in Pakistan	Mangla Dam Contractors
72	Consulting and Contracting Practices in Pakistan	Ahmad Khaleeli

Sr.No	Title	Name of Author
VOLUME - IX **ROLE OF ENGINEERING RESEARCH IN DEVELOPING ECONOMY OF PAKISTAN** **October, 1966**		
73	Importance of Nuclear Power Generation in the Developing Economy of Pakistan	Masnoon S. Ahmad
74	Nuclear Engineering Research for Development of Nuclear Power in Pakistan.	Muhammad Yusuf
75	Role of Research in Railways of Developing Countries	C.A. Vali
76	Development of Building Research in West Pakistan	Mian M. Hanif
77	Role of Research in the Control and Use of Water	Mushtaq Ahmad
78	Hydraulic Research in West Pakistan	Khalid Mahmood
79	Hydraulic Model Research for I.B.P.	C.Van. Beesten
80	Research on Water and Land for Survival	Nazir Ahmad
81	Water Construction Studies for West Pakistan	Nazir Ahmad
82	Impact of Irrigation Research on the Developing Economy of West Pakistan	Muhammad Hussain & Nur-ud-Din Ahmad
VOLUME - X **BRIDGES** **February, 1968**		
83	The Technique of Steam Curing of Concrete	Mian Saeed Ahmad
84	The New Challenge in Building	Abdus Salam
85	Some Design Aspects of Thatta Shujawal Bridge on the Indus	Mohi-ud-Din Khan
86	Foundations for Thatta Shujawal Road Bridge	A.L. Quadri & Mohsin H. Shaikh

Sr.No	Title	Name of Author
87	Correction Factor for Evaluation of Discharge by Manning Formula in Bridge Design	Fateh Ullah Khan
88	Partial Pre-stressing for Highway Bridge	Jorg Peter
VOLUME - XI **WATER RESOURCES DEVELOPMENT**		
89	Planning the Development of Pakistan's Water Resources	Sarfraz Khan Malik
90	Planning Irrigation Requirements	Sh. Mohammad Afzal
91	Drainable Surplus Problems in Irrigated Areas	P.I. Druty
92	Study of Water-logging Problems of West Pakistan with	Maqsood Ali Shah Gilani
93	The Economics of Land Reclamation in the Former Sindh	C.E. Finney
94	Some Problems of Groundwater Resources of West Pakistan.	Nazir Ahmed
VOLUME - XII **PROBLEMS OF ENGINEERING PROFESSION IN PAKISTAN**		
95	Floods and Cyclones in East Pakistan	B.M. Abbas
96	Engineering Consultancy and Contractual Services in Pakistan	Muhammad Omar
97	The Making of an Engineer	Manzur Ahmad
98	Development of Consultants and Contracting Professions in Pakistan	I.A.Zafar
99	The Participation of Engineers in National Development	Imtiaz Ali Qazilbash
100	Of Engineer and Accounts	Riyaz H. Bokhari
101	Training Needs of Engineering Profession	S.M. Rafi Ahmad
102	An Engineer in Search of an Image	Nisarul Haq

Sr.No	Title	Name of Author
VOLUME - XIII **PLANNING FOR NATIONAL OBJECTS** **1972**		
103	Planning of Highways for National Objectives	Imam Bari Pervaiz
104	Streamlining the Public Services for the Tasks of National Objectives	M. Iftikhar-ud-Din
105	Organizing Earthmoving and Construction Equipment for Achieving National Objectives.	S. Nisarul Haque
106	The Challenge of Power Supply in People's Era	Mian Fazal Ahmad
107	Manpower Planning	K.M. Butt
108	Evaluation of Projects: An Administrative Missing Link	Masood Hasan
109	People's Works Programme. Planning and Development at Local Level	Abdul Latif Mirza
110	Development of Steel Industry in Pakistan	Fida Rahim
111	Do's and Don'ts in Infrastructural Planning	Sarfraz Khan Malik
VOLUME - XIV **UTILIZATION OF NATURAL RESOURCES IN PAKISTAN FOR SELF RELIANCE** **1974**		
112	Role of Pakistan's Natural Gas Industry Towards Self Reliance in the Energy Economy.	A. Samad
113	Supply and Demand of Chemical Fertilizers	W.M. Butt
114	Energy Resources of Pakistan	M. Masihuddin
115	Phosphate Deposits of Pakistan	S. Tayyab Ali Shah

Sr.No	Title	Name of Author
VOLUME - XIV **TARBELA DAM** **1975-76**		
116	History of Tarbela from Inception to Substantial Completion.	Riaz Nazir Tarar
117	Seepage Control at Tarbela Dam Through Upstream Blanket	Amjad M. Agha
118	A Study in Dam-Break Flood	Sh. Abdur Rahman, & Khalid Javed
119	Modern Techniques of Vigilence and repairs on Large Dam.	Ch. Altaf Hussain
120	Economic Effect of Tarbela Mishap	Irshad Ahmad
121	Hydraulic Model Studies for Tarbela Dam	Mushtaq Ahmad & Ch. Muhammad Ali
122	Tarbela Dam Project	Sheikh Ahmad Hassan
	Note: The above papers Nos. 116 to 122 were not presented under instructions from the Government of Pakistan.	
VOLUME - XVI **LOW-COST STRUCTURES** **1978**		
123	Aspects of Low-Cost Urban Construction in Pakistan	Z. Mian,K. Mahmood & S.T. Wasti
124	Self-Reliance in Low-Cost Rural Development	N.M. Awan
125	Economy in Low-Cost Housing	Mohammad Sharif Ahmad
126	A Study of the Effect of Sand on The Compressive Strength of Stabilized Soil Blocks	Ahmad Mukhtar Khan

Sr.No	Title	Name of Author
127	Primary School Buildings Requirements and Design	K. Mahmood & S. Khalifa
128	Economical Design of Masjid Dome	Sheikh Wajeeh-ud-Din, Bakhtiar Ali & Muhammad Azim
129	Towards Low-Cost Buildings	Kennerth G. Old
130	Determining Minimum Cost Cross-Sections for Lined Channels	Tom Trout

VOLUME - XVII

ENGINEERING'S ROLE IN PLANNING EXECUTION AND MANAGEMENT OF PROJECTS

1982

131	Essentiality of Project Management in Development Economics	Khalid Mohtadullah
132	Some Management Aspects of SCARP-I	N.M. Awan
133	Planning of Flood Protection Works	Muhammad Aslam Chohan
134	Revised Action Programme for Irrigated Agriculture in Pakistan	M. Badruddin
135	SCARP Planning in Northern Indus Plains	Ch. Ata-ur-Rehman

Sr.No	Title	Name of Author
VOLUME - XVIII **RURAL DEVELOPMENT** **October, 1985**		
136	Strategy of Rural Development in Pakistan	M.S. Cheema
137	Public Tubewells Vs.Private Tubewells	Ramiz A. Malik
138 MM	Enhancing Water Availability to Farmers	Nazir Muhammad, M.I. Shaheed & Syed Mansoob Ali Zaidi
139	Non-Conventional Energy Options for Rural Electrification in Pakistan	Mushtaq Ahmad Bhatti
140	Rural Roads in Punjab	Rana Akhtar Ali Chohan
141	Impact of Salinity Control	N.M. Awan
142	Sanitation and Drainage	Rana M. Saeed Ahmad Khan
143	Drinking Water Supply Coverage to Rural Areas	S.M.Ashraf
144	Farm Machinery and its Role	Sikandar M. Khan
145	Maintenance, Operation and Construction of SCARP Tubewells	Abdul Hamid Arif
146	Electrification of Villages	Abdul Aziz Chaudhry
VOLUME - XIX **ENERGY CRISES** **1985-86**		
147	Energy Conservation	Sadaqat Hassan Mir
148	Development of Thermal Power	Ch. Arshad Zaman
149 MM	Medium Term Strategy of Hydro-electric Development in Pakistan	Saleem Akhtar Niazi
150	Mini Hydro Power Development in Pakistan	M.R. Chaudhry

Sr.No	Title	Name of Author
151	Energy Loss Reduction in WAPDA Power Distribution System	Daud Beg
152	An Over-view of Energy Position in Pakistan	Muhammad Irfan Akhtar
153	Energy Conservation in Air-conditioning	Qamar Raza Naqvi
154	Renewable Energy Options to Overcome Energy Crisis in Pakistan	Mushtaq Ahmad Bhatti
155	Necessity of Nuclear Energy for Pakistan	Arshad Muhammad Khan
156	Research Program for Solar Energy	Syed Wajahat Ali
VOLUME - XX		
	QUALITY CONTROL AND MATERIALS	
	1986-87	
157 MM	Evaluation of Mortar / Concrete Mix-Ratio Analysis Method	Irshad Ahmad
158	Quality Control on Construction Material	M. Afzal Bhatti
159	Material Prospection for Dams	Izhar-ul-Haq
160	Quality Control in Pakistan Industries - Present Situation	Anwar Saleem
161	Quality Control Program in the Construction of a Nuclear Facility	Shafqat Rabbani
162	Effectiveness of Pakistan Steel's slag in Controlling Alkali - Silica	Ghulam Hussain
163	Improved Cost in the Service of Engineers	J.K. Jaffery

Sr.No	Title	Name of Author
VOLUME - XXI **HYDEL POWER IN PAKISTAN** **1987-88**		
164	Hydro Power Potential of Pakistan	Izhar-ul-Haq & K.F. Shaikh
165	Hydro Electric Power Projects Construction Planning and Implementation in Inaccessible Northern Areas of Pakistan	Ijaz-ud-Din Khan
166	Socio-Economic Imperatives of Hydro Electric Development in Pakistan	Mian Fazal Ahmad
167	Micro Power Plant Program in Pakistan	Anwar A. Junejo & Zafar Iqbal
168	Planning Strategy for Development of Hydro Power in Pakistan	Muhammad Zakaria
169 MM	Small Scale Power Generation in Private Sector with Special Reference to Small Hydel Power Generation	L.A. Jaffery
170	Construction Planning of Small Hydro Power Projects Financing - Contract Packaging Project Schedule	S.S. Kirmani
171	Indigenous Development to Exploit Hydel Potential in Pakistan	M.Y. Akhtar
172	Kundal Shai Hydel Scheme	Khalid Yamin

Sr.No	Title	Name of Author
VOLUME - XXII **OPERATION & MAINTANCE OF COMPLETED PROJECTS** **1989-90**		
173 MM	Historical Review of Development in Design, Operation and Maintenance of Barrages in Relation to Surface Flow.	Mushtaq Ahmad
174	Operation and Maintenance of Canals	R.K. Anver & R Haq.
175	Operation and Maintenance of Completed SCARPS	Hamid Ullah Khan, Syed Rehmat Ali & Muqarrab Khan
176	Operation and Maintenance of Dams	Izhar-ul-Haq
177	SCARP Planning, Operation and Maintenance	Nasir Ahmad
178	Modern Telecommunications on Pakistan Railways	Khalid Qasim
179	New Concept in Modern Signaling Maintenance Methods	Wasif Roheel
180	Maintenance of Drainage Systems	Syed Manzoob Ali Zaidi, Haroon Shami & Muhammad Mehdi Zaidi
VOLUME - XXIII **FLOOD MANAGEMENT IN PAKISTAN** **July, 1994**		
181	Floods in Indus Basin, their Control and Management	Riaz-ul-Haq
182	Management of 1992 Floods Through Reservoir	Muhammad Afzal & Abdul Ghani
183	On the Study of 1992 Floods and its Effects on Punjab	Syed Ali Rizwan & Faiz Ahmad Chashti

Sr.No	Title	Name of Author
184	Role of Marginal Bunds in Flood Fighting - A Case Study of Cutting of Marginal Bunds during Floods of 1992 at Trimmu and Punjnad Headworks.	A.A. Shakir
185	Floods and Roads in Indus Basin	E.I. Johri
186	Floods Frequency Analysis at Some Typical Discharge Measuring Site of Pakistan Rivers	Syed Ali Rizwan
187	Flood Forecasting and Warning Problems in Pakistan	Abdul Majeed
VOLUME - XXIIAI		
INTERNATIONAL SYMPOSIUM ON MANAGEMENT OF HILL TORRENTS IN PAKISTAN December, 1995		
188	Watershed Management in Japan	Yoichi Kishi & H. Ishihara.
189 MM	Management of Kaha Hill Torrent	Syed Mansoob Ali Zaidi
190	Problems in Disaster Prevention in Developing Countries	Masyuki Watanabe
191	Harnessing of Hill Torrents in Pakistan: A Conceptual Analysis	Sabir Ali Bhatti & Muhamad Nasir Khan
192	Flood Management of Hill Torrents in Pakistan	A.S. Shakir & Asrar-ul-Haq
193	Status of Rod Kohi System Management: A Case Study	M. Shafiq, M.Z. Ikram & M. Ahmad
194	Role of Small Dams in Stream Flow Regulation	Abdul Ghaffar
195	Potential for Efficient Utilization of Hill-Torrents for Crop production in Dera Ghazi Khan	Munir Ahmad
196	Participatory Approaches in Integrated Watershed Management	Moujahed Achouri

Sr.No	Title	Name of Author
197	Upper Kaha Hill Torrent Management	Muhammad Azam & Bashir Ahmad Mian
198	Flood Management of F.P. Bund Complex	Govt. of Sindh, I&P Karachi
199	Note On Range Management in DG Khan	Forest Deptt. D.G. Khan.
200	Rod Kohi System in D.I. Khan Division	Irrigation & Power Department,D.I. Khan. Govt. of NWFP.
VOLUME - XXIV **IMPACT OF POWER POLICIES ON SOCIAL AND PRODUCTIVE SECTORS** **1996**		
201	Power Growth in Pakistan	Khalid Sajjad
202 MM	Evaluation of the 1994 Private Power Policy	Javid Akhtar
203	A Discourse of Thermal Generation Policy Private Sector Vs. Public Sector	Iqbal Ashraf
204	Impact of Privatization of Power on Agriculture	Muhammad Yaqoob Bhatti
205	Impact of Hydel Policy on the Power Tariff in Pakistan	Muhammad Khan
206	Impact of Power Policies on Social and Production Sector	Rehmatullah Javed

Sr.No	Title	Name of Author
VOLUME - XXV **ENVIRONMENTAL PROTECTION AND RESOURCE CONSERVATION** **May, 1998**		
207	Environmental and Social Soundness Assessment of 700 MW Thermal Power Plant	Javed A. Aziz & Rafiq Shad
208	Nitrate, Fecal Coliform and Pesticides in Shallow Groundwater of Raiwand, Lahore Pakistan	Shahzad Afzal, Muhammad Farooq, M. Hammad Atique Khan, Muhammad Ismail Khan & Karamat Ali
209	Pakistan in the Grip of Deficient Contemporary Environmental Technologies	Ahmad Nawaz Cheema.
210	Ghazi Brotha Power Project - A case study in Environmental Protection and Resource Reservation	Khurshid Ghias Ahmad
211	Salinity Extent and its Management in Punjab	Azhar Javaid, Ch. Karamat Ali Ahmed & Muhammad Javed
212	Environmental Conservation of Wetlands in Pakistan	Izhar-ul-Haq, Muhammad Arshad & Javid Zaheer Iqbal
213	Drainage and Environment: Evaluation of Past Interventions and Future Strategies in Pakistan	Asrar-ul-Haq, Bagh Ali Shahid & Abdul Sttar Shakir
214	Conservation of Water Resources of Pakistan	Izhar-ul-Haq & S. Tanveer Abbas
215	Environment and Cancer	Mumtaz Hussain
216	Eco-Impact of Toxic Pesticides	Mumtaz Hussain

Sr.No	Title	Name of Author
Volume - XXVI **NEED FOR HYDRO-POWER DEVELOPMENT TO SOLVE ENERGY CRISIS** **April, 1999**		
217	Hydro-electric Power Potential Identified under Pakistan-German Technical Cooperation with GTZ Additional to Potential on Main Stem of River Indus	Herbert Kuntz
218	Role of Low head Potential to Meet the Energy Crisis in Pakistan	Mahmood Ahmad Malhi & Muhammad Farooq Ahmad
219	Available Data Banks and Information on Hydro-power	J.J. Victoria
220	Facilitation of Hydro-power Development by Independent Power Producers	Riaz Nazir Tarar
221	Feasibility Studies Ready for Involvement of Private Investment under 1998 Power Policy	G.M. Iliass & Javed Rashid
222	Development of Hydro-Power to Meet Energy Crisis of the Country	Ghulam Abbass & Fayyaz Asghar
223	Manpower Requirements in Hydro-Power Engineering	J.J. Victoria & Muhammad Latif
224	Optimization of Hydro-Electric Projects	Ch. Altaf-ur-Rehman

SECTION - XIII

AUTHORS INDEX

AUTHORS INDEX

A R Astbury	47, 71
A R Talwar	67
A Rahimtoola	63
A St. G. Lyster	55, 71
A. Ahmed	79
A. Aziz	34
A. R. Memon	84
A. Samad	94
A. Weighall	71
A.A. Abidi	91
A.A. Jamal-ud-Din	56, 87
A.C. Paddy	5
A.G. Asghar	7,13
A.G.C. Fane	31, 55
A.I. Sleigh	55
A.J. Wadely	23, 31
A.K. Astbury	37
A.L. Quadri	92
A.M.R Montagu	5, 23, 31, 83
A.N Cheema	14, 41
A.N. Wilson	7, 32
A.P.S. Forbes	90
A.R. Khanna	47
A.R. Thomas	7
A.R.B. Armstrong	47, 55
A.S. Gibb	31
A.U Loan	63
A.V. Karpov	91
A.W.M. Jesson	6
Abdul Aziz Anwar	87
Abdul Aziz Chaudhry	97
Abdul Basit Akhtar	24
Abdul Ghaffar	101
Abdul Ghani	100
Abdul Hamid	13, 19
Abdul Hamid Arif	97
Abdul Khaliq Khan	8, 20
Abdul Latif	7, 33, 94
Abdul Majid	19, 27, 101
Abdul Qayyum	52
Abdul Razzaq	8
Abdul Rehman	8
Abdul Sttar Shakir	9, 24, 101, 103
Abdul Waheed Ch.	56
Abdur Rahman	8
Abdus Salam	48, 56, 92
Afzal Javaid	38
Ahmad Khaleeli	91
Ahmad Masud Ch.	9
Ahmad Mukhtar Khan	95
Ahmad Nawaz Cheema.	103
Ahmad Sana	38, 84
Ahmad Tariq	24, 33
Ajudhia Nath Khosla	5, 6, 32, 55
Akmal Hassain	67, 88
Akram Tahir	38, 84
Ali Muhammad	38, 71
Aman-ullah Khan	79, 83
Amar Nath Nanda	13
Amir Ahmad Khan	89
Amir-ur-Din.	9.
Amjad Agha	95
Amjad Pervez Sheikh	79, 83
Andrew Wirth	79
ANM Robertson	71
Anwar A. Junejo	99
Anwar Saleem	98
Arshad Muhammad Khan	98
Ashfaq Hasan	37
Asrar A. Qureshy	19
Asrar-ul-Haq	9,10,24,101,103
Azhar Ali Bhatti.	38
Azhar Javaid	103
Aziz A. Anwar	88
B.A Chaudhry	71
B.A. Ghani	23
B.A.Malik	10
B.C. Battye	31, 63
B.H. Wilsdon	5, 13
B.K. Kapur	23, 32
B.M. Abbas	91, 93
B.N. Singh	13
B.P. Verma	31
Badr-ud-Din.	91
Bagh Ali Shahid	9, 14, 103
Bakhtiar Ali	38, 96

Balwant Singh 47
Bashir Ahmad 19
Bashir Ahmad Mian 102
Bhikam Singh 47
Bilal Ahmed 38, 84
Binnie and Partners 89
Brij Mohan Lal 47
Bushra Waheed 84
C.A. Bower 90
C.A. Vali 92
C.B. Barrie 41
C.C. Inglis 32
C.E. Blaker 19, 71, 83
C.E. Finney 93
C.F. Carson 55
C.F. Jefferis 5
C.G. May 13
C.L. Handa 19,32,33,75
C.M. Ashraf 83
C.S. Wait 37
C.Van. Beesten 92
Campbell Gray 71
Cecil A. Colyer 31,83
Ch. Altaf Hussain. 14,15,95
Ch. Altaf-ur-Rehman 19,104
Ch. Arshad Zaman 97
Ch. Ata-ur-Rehman 9,13,14,96
Ch. Bashir Ahmad 14
Ch. Ghulam Hussain 48,98
Ch. Karamat Ali 15,103
Ch. M. Abdullah 79
Ch. Mohammad Hussain 8
Ch. Muhammad Akbar 9
Ch. Muhammad Ali 24,33,34,95
Ch. Nuruddin Ahmad 9
Chanan Singh 13
Charles S. Hazen 91
Chih Ted Yang 9
D. Macfarlane 55,71,83
D.A. Howell 41,70
D.C. Varma 23
D.M. Khanzada 19
D.P. Nayyar 47,71
Daren G. Theil 89
Daud Beg 64,98
Daud Nasir Fakher Raza 71
Dusembayev Isim Nacievich 38
E. Cathrow 41
E. Mckenzie Taylor 32
E. Montford Fucik 91
E. Watson 51
E.A.C Lister 55
E.I. Johri 48,101
E.L. Prothero 32
E.O. Cox 33
E.P. Anderson 51
E.R. Foy 31
E.S. Heard 41
E.S. Lindley 5,31
Ehteshamullah Khan 79
F. H. Burkitt 5,31
F. Marshal Purves 5
F.A. Carne 37
F.A. Hamdani 52
F.C Pavry 55
F.F. Haigh 32
F.J. Harvey 23
F.J. Watts 9
F.L. Milne 63
F.N Budden 47
F.R. Hawkes 51
F.V. Elsdon 5,13
F.W Martin 37
F.W. Schonemann 5,19,31
Faiz Ahmad Chashti 101
Farooq Khan Niazi 9
Fateh Ullah Khan 93
Fayyaz Asghar 104
Fida Rahim 94
Forest Deptt. D.G. Khan. 102
G.A. Awan 79
G.A. Plank 23
G.A.N. Starmans 88
G.C Khanna 48
G.H. Hunt 63

G.H. Vaughan Lee 91
G.M. Iliass 104
G.R. Haffman 90
G.R. Nangea 56
G.R. Sawhney 7
G.T. Mcarthy 91
G.T. Pound 47
G.W. Duthy 5
Ganpat Rai 33
Gerald Lacey 6,8
Ghazanfar Mohammad Khan 24
Ghiasuddin Habib 37,48,71,87
Ghulam Abbass 104
Ghulam Ahmad Asgher 83
Ghulam Murtaza Ilias 64
Ghulam Sarwar 56
Govt. of NWFP. Irrigation & Power Department,D.I. Khan. 102
Govt. of Sindh, I&P Karachi 102
Gul M. Shah 84
Gulam Mustafa Qazi 38
Gurdas Ram 32
Gurdial Singh 51,56
H. Holman 71
H. Ishihara. 101
H.A Davies 79
H.A. Nishat 91
H.B. Adams 79
H.H.S Sales 55
H.J. Asrar 33,87
H.L Woodhouse 47
H.L. Vadera 7,67
H.M. Glover 27,83
H.P. Thomas 63
H.R. Steward 7
H.S. Zaidi 7,91
H.W. King 5,6,31
H.W. Nicholson 23
Hamid Ullah Khan, 101
Harbans Lal Uppal 6,7,23,32
Haroon Shami 100
Hashmat Ali 48
Herbert Kuntz 104
Hukam Singh 83
Humayun Pervaiz 64
Husnain Ahmad 38
I. H. Hamdani 75
I.A. Chaudhry 67
I.A. Khaliq 8
I.A. Zafar 23,37,67,79 88,89,93
Ijaz-ud-Din Khan 99
Imtiaz Ali Qazilbash 83,93
Imam Bari Pervaiz 94
Iqbal Ahmad Beg 41
Iqbal Ashraf 102
Iqbal Hussain 13,47
Ir. H. Vlugter 8
IRFR Vanmassenhove 64
Irshad Ahmad 84,87,95,98
Irshad Hussain 79
Ishar Das 7
Izhar ul Haq 9,14,19,24,98 99,100,103
Izzat Ullah Sheikh 83
J Vardon 41,67
J. Halcro Hohnston 37,47,55
J. Hartford 23
J. K. Jafferi 79,98
J. P. Gunn 23
J.A. Bell 51
J.A. Parvez 19
J.A. Tariq 9
J.A.R. Bromage 41
J.D. Watson 55
J.D.H. Bedford 6,31,67
J.E. Priest 90
J.H.T. Middleton 13
J.J. Victoria 104
J.K. Wyman 71
J.O. Waterhouse 5
J.R. Gwyther 91
J.R. Simpson 55
J.Vardon 41

Jamal Rostami 72
James C. Ringenoldus 89
Jamil Asghar 63
Javaid Akhtar 63,102
Javed A. Aziz 42,84,103
Javed Rashid 104
Javed Salim Qamar 14
Javed Yunas Uppal 38,83
Javid Zaheer Iqbal 103
John B. Drisko 89
John Ashford 63,67
John P. Barford 84
Jorg Peter 93
K. Preston. 51
K.B. Nizam-ud-Din 51
K.F. Shaikh 99
K.G Mitchell 47
K.L Khawaja 38
K.M. Butt 94
K.R. Sharma 6,32,33,71
Kanwar Sain 6,23,27,37,55
Karnail Singh 56
Kennerth G. Old 96
Khalid Jalil 84
Khalid Javed 95
Khalid Mahmood 8,24,37,92,95, 96
Khalid Mohtadullah 96
Khalid Qasim 100
Khalid Sajjad 102
Khalid Yamin 99
Khan Bashir Ahmad Khan 87
Khan Gul Jadoon 79
Khan Mohammad Azam Khan 37,71
Khan Sarwar Jan Khan 67
Khawaja Azeem-ud-Din 19,91
Khursheed Mahmud 24
Khurshid Ahmad 84
Khurshid Ghias Ahmad 14,103
Khushi Ram Erry 6,7
L.A. Jaffery 99
L.B. Holland 27
Lahna Singh 19
M Hussain Ali 64
M Naeem Ayyaz 84
M Sadiq Swati 48
M Tariq Amin Ch. 56
M Tariq Chaudhry 75
M. Abaid Ullah 14
M. Abdullah 13
M. Afzal Bhatti 98
M. Ahmad 101
M. Amir Chaudhry 52
M. Ashraf 38
M. Aslam Rasheed 19,24
M. Aurangzeb Khan 52
M. Azam Chaudhry 24,38,96,102
M. Azhar Javed 15
M. Badr-ud-Din 90,96
M. Hammad Atique Khan 102
M. Hanif 37
M. Hasnain Khan 9,10
M. Iqbal 38
M. Islam 83
M. Javed 15
M. L. Mehta 13
M. Maasland 90
M. MacDonald 90
M. Mansoor Khan 79
M. Masihuddin 94
M. Munir Ali 72
M. Mursaleen 52
M. Mushtaq Ch. 20
M. Naimatullah Cheema 9,38
M. Ramzan Ch. 14
M. Sadiq Swati 48
M. Saeed Minhas 19,27,88
M. Safdar Chishti 10
M. Saleem Ch. 18
M. Shafiq 101
M. Talib Chaudhry 38
M. Uneeb 67
M. Yaqboob Soomro 79
M.A. Hafeez Khan 13
M.A. Lateef 90

M.A. Rahim 7,23
M.A. Waheed 48
M.A. Wahidi 23
M.F. Thompson 67
M.H. Bhair 52
M.H. Masud Butt 64
M.H. Shah 87
M.I. Memon 34
M.I. Shaheed 97
M. Iftikhar-ud-Din 94
M.L. Mehta 37
M.M. Sadiq. 90
M.M. Zubair 87
M. Massland 90.
M.R. Chaudhry 19,34,75,97
M.S. Cheema 97
M.S. Malik 90.
M.S. Sandhu 13
M.Y. Akhtar 99
M.Y. Anwar 79
M.Z. Ikram 101
M.Z. Mozaffar 52
M.Z. Qayyum 7
Madan Lal 33
Mahmood Ahmad Cheema 63
Mahmood Ahmad Malhi 104
Mangla Dam Contractors 91
Mansur Ahmad 75,93
Maqsood Ahmed Malik 27
Maqsood Ali Shah Gilani 88,93
Marcel Bitoun. 90
Masih Ullah Khan 41
Masnoon S. Ahmad 92
Masood Hasan 83,94
Masyuki Watanabe 101
Mazhar Ali 8,34
Mazhar Munir 87
Mazhar Rafiq 79
Mazhar-ul-Haq 48
Mehtab Khan 24
Mian Alim-ud-Din 87
Mian Barkat Ali Luna 9,27
Mian Fazal Ahmad 63,64,94,99
Mian Ghais-ud-Din 52
Mian Hafizullah 10
Mian M. Amin 42
Mian M. Hanif 71,72
Mian Masud Ahmad 89
Mian Muhammad Akram 8,9,27,42
Mian Muzaffar Ahmad 87
Mian Saeed Ahmad 92
Mirza Mohammad Said 23
Mohammad Ali Ch. 8,33
Mohammad Asghar 14,37
Mohammad Aslam 56
Mohammad Ibrahim 5,7
Mohammad Mehboob Alam 27
Mohammad Nazir 13,19,63
Mohammad Sarfraz 27
Mohammad Sharif Ahmad 95
Mohi-ud-Din Khan 33,48,59,63,64,89,90,92
Mohsin H. Shaikh 92
Moujahed Achouri 101
Mubashir Hasan 88
Muhamad Nasir Khan 101
Muhammad Afzal Khan 87,100
Muhammad Ali 89
Muhammad Arshad 103
Muhammad Aslam Chohan 34,96
Muhammad Farooq Ahmad 103,104
Muhammad Hussain 90,91,92
Muhammad Ihsan-ur-Rehman Khan 88
Muhammad Irfan Akhtar 64,98
Muhammad Ismail Khan 103
Muhammad Javed 83,103
Muhammad Khan 102
Muhammad Latif 9,14,104
Muhammad Mehdi Zaidi 100
Muhammad Omar 93
Muhammad Saleem 67

Muhammad Shafique 9
Muhammad Yaqoob Bhatti 102
Muhammad Yusuf 92
Muhammad Zakaria 99
Mukhtar Ahmad 87
Mumtaz Hussain 103
Munir Ahmad 101
Muqarrab Khan 100
Murari Lal 47
Mushtaq Ahmad 7,8,33,34,89, 92,95,97,98, 100
Mushtaq Ahmad Bhatti 97
Muzaffar Ahmad 7
Muzaffar Iqbal Sheikh 48
N Z Adhami 75
N. Baddington 63,71
N. Pearce. 51
N.B. Shroff 37
N.D. Gulhati 13,27,33
N.G. Watson 55
N.K. Bose 6,7,13,
N.M. Awan 14,27,95,96,97
N.V. Dorrofeeff 63
Nafis Ahmad 33
Nand Gopal 6,37
Naseeruddin Murat Khan 87
Nasir Ahmad 100
Nasir Ali 24
Nasir Hyat 79
Nazir Ahmad 8,9,14,13,19, 23,27,34,42,67 ,88,89,91,92, 93
Nazir Muhammad 97
Nur-ud-Din Ahmad 8,90,92
P. Claxton 5,7,59
P.A. Turner 32
P.C. Judges 55
P.E. Nayior 90
P.F. Messer 79
P.G. Dani 41
P.I. Druty 93
P.L. Dhawan 51
P.L. Varma 56
Pervaz Rashid 63
Prabh Singh 31
PSA Berridge 55
Qamar Raza Naqvi 98
Qazi M. Anwar-ul-Haq 19
R Hackney 67
R. Gohar 67
R. M. Gorrie 6
R. Palta 19
R.A. Shamsi 88,90
R.A. Sheikh 75
R.A. Wallace 37
R.C. Talwar 63
R.D. Keane 63
R.D. Waghorn 51
R.K. Anver 34,100
R.K. Levis 89
R.L. Sondhi 48
R.N. Dogra 47
R.O.C. Thomson 23
R.P Hadow 67
R.P. Lall 51
R.S. Duncan 6
Radha Krishan Khanna 5
Rafiq Shad 103
Raja Karamat Ullah 48
Rajbansi Lal 23
Ramiz Ahmad Malik 8,34
Rana Akhtar Ali Chohan 97
Rana M. Saeed Ahmad Khan 97
Rana Nisar Ahmad 71
Rao Riaz-ur-Rehman 83
Rehmatullah Javed 102
Riaz Ahmad 24
Riaz Ahmad Goraya. 72
Riaz Nazir Tarar 95,104
Riaz-ul-Haq 100
Riyaz H. Bokhari 93
Robert. L. Burns 88
S Mukhtar Ahmad 56

S. Allah Bakhsh Khan 7,23,67,87
S. Irshad Ahmad 63
S. Irshad Hussain 37,41
S. Khalid Asmi 34
S. Khalifa 96
S. M. Naqi 79
S. Nisarul Haque 67,93,94
S. Shafqat Ali 79
S. Sibtul Hassan Shah 71,83
S. Tanveer Abbas 103
S. Tayyab Ali Shah 94
S.A. Hussaini 19
S.A. Rahim 87
S.D. Khangar 13,19,27
S.G. Stubbs 47
S.H. Nawab 51
S.I. Mahbub 7,19,33
S.L. Kumar 51,56,75
S.L. Malhotra 6,7,32
S.M. Ayoob 24,34
S.M. Bhutta 64
S.M. Ismail 34
S.M. Niaz 23,33
S.M. R.Abidi 91
S.M. Rafi Ahmad 93
S.M.Ashraf 97
S.M.H. Bokhari 14
S.N. Kapur 7,23,33
S.N. Naqvi 27,87
S.N.H. Mashhadi 9,10,27
S.R. Mehra 47
S.S. Kirmani 7,8,33,63,83, 89,99
S.T. Wasti 95
S.U. Qureshi 56
Sabir Ali Bhatti 101
Sadaqat Hassan Mir 97
Saeed Ahmad 48
Saad N. Cheema 72
Said Ahmad 33
Sajjad Haider 48
Salamat Ali 24
Saleem Akhtar Bhalli 48
Saleem Akhtar Niazi 97
Saleem Bashir 27
Saleem-ud-Din 20
Sameer Z. Khan 56
Sardar M.Tariq 20
Sarfraz Ahmad 9
Sarfraz Khan Malik 27,33,93,94
Sarwar Jan 91
Sayyid Hamid 27
Sh. Abdur Rahman 95
Sh. Mohammad Afzal 93
Shafqat Hussain Qureshi 83
Shafqat Rabbani 98
Shahbaz Khan 24
Shahzad Afzal 103
Shamim Ahmad 91
Shaukat Ali 48
Sheikh Abdur Raoof 41
Sheikh Ahmad Hassan 95
Sheikh Rafi Ahmad 41
Sheikh Wajeehuddin 38,96
Sikandar M. Khan 97
Suhail Aftab Qureshi 64
Syed Ali Debaj 38
Syed Ali Rizwan 24,38,100,101
Syed Arshad Ali 41
Syed Fayyaz Ali Shah 48
Syed H. Gilani 9
Syed Mansoob Ali Zaidi 14,24,78,97, 100,101
Syed Manzoor Hussain Rizvi 10
Syed N.A.Z. Hussaini 88
Syed Rehmat Ali 100
Syed Wajahat Ali 98
Syed Zia-ul-Hasan 41
T Melntyre 56
T. A. Miller-Brownlie 67
T. Blench 6
T.A. Curry 5
T.A.W Foy 32
T.M. Bostock. 5
T.N. Jewitt 90

T.N. Kunzru 51
Tahir Ahmad Malik 10,24
Tahir Altaf 9
Tahir Hamad 9,10
Tajamal Hussain Qureshi 48
Tariq Mehmood 84
Thakar Das Gulhati 6
Tom Trout 96
Travush Vladimir Llieh 38
U.A Coates 83
Usman Akram 34
V.A. Koelzer 90
V.I. Vaidhanathan 6.,13,32
Victor Bayley 37
W. Roberts 6,83
W.A. Anderson 56
W.A.R Baker 47
W.B. Harvey 5
W.D McD Criuick 55
W.E. Buchanan 41
W.M. Butt 94
W.P. Thompson 13,31
W.S Dorman 27,47,55,67
W.T. Everall 55
Wasif Roheel 100
Wazir Singh Aggarwal 51
William Arther Mellors 88
Wirasat Ullah Khan 87
Y.P. Kulkarni 51
Yawar Hamid 15
Yoichi Kishi 101
Z. Mian 95
Z.U. Kidwai 90
Zafar Iqbal 99
Zahid A. Siddiqi 38
Zahid Hussain. 14
Zia-ul-Haque 8,75,84,
Zubair Emran Khawaja 48
Zulekha Soomro 79