


# **Dr. A. Q. Khan on Science, Technology & Education**

Lectures and Articles  
Compiled by  
Prof. Dr. Mujahid Kamran



# CONTENTS

Acknowledgments	v
Preface	vii
Foreword	ix
1. Propaganda Against Pakistan's Peaceful Nuclear Programme	1
2. Indian Nuclear Duplicity	13
3. Nuclear War, Nuclear Proliferation and Their Consequences	21
4. The Nuclear Non-Proliferation Treaty at Crossroads	35
5. Uranium Enrichment at Kahuta, A Decade of Pakistani Experience	53
6. The Concept and Doctrine of Nuclear Warfare	61
7. What is Kahuta? An Interview	69
8. Advanced Materials - I	75
9. Pakistan's Nuclear Programme: Capabilities and Potentials of Kahuta Project	77
10. Dr. A. Q. Khan Speaks to Defence Journal	85
11. Advanced Materials - II	91
12. Atoms for Development	95
13. Advanced Materials - III	101
14. Magnets and Magnetic Materials	105
15. Status of Higher Engineering Education and Research in Pakistan	109
16. The New Role of the Medical Profession	121
17. Restricted Areas of Science & Technology and Ways to Develop Such Technologies in the Muslim World	125
18. Advanced Materials - IV	135
19. Medical Science Needs Attention	137
20. Only Scientifically Self-reliant and Technically Well-equipped Nations can win a Respectable Place Among the World Community	139
21. Prospects of Promoting Science and Technology in the Islamic Development Bank Member Countries	143
22. Dr. A. Q. Khan Research Laboratories, Kahuta: Twenty Years of Excellence and National Service	159
23. Create Awareness About Materials	183
24. Pakistan Needs to do More in the Realm of Vibrations	185
25. Impact of Research on Health, Education and Community Development	187

26. Need for Mental Health Service	191
27. No Progress without Scientific Excellence	193
28. Interaction Between Asian Countries Vital to Foster Friendship	197
29. Let us Pull Ourselves out of the Quagmire of the Past	199
30. Firm Foundations of a Nation are Laid at Elementary Level	203
31. Tranquility and Peace of Mind Essential for Progress	207
32. Research is the Bedrock of Development	209
33. Advanced Materials - V	211
34. The Development of Ummah in Science and Technology	215
35. Knowledge, The Only Factor for Development in the Modern World	219
36. Role of Women in Science and Technology	223
37. S&T Strategies for National Development	225
38. Let us Carve a Better World for our Children	231
39. Let the Dominant Passion of your Life be to Serve your Community	235
40. Mechanical Vibrations	237
41. Education is the Basic Need of Every Society	241
42. Education - The Sole Means for Acquiring Socio-Economic Development	243
43. Present Status and Future Prospects of Science and Technology in the Islamic World	245
44. Software Development Way to Industrial Excellence	251
45. The Journey to our Nuclear Test	253
46. Pakistan's Journey to Nuclear Capability	263
47. Education is the Noblest Attribute of a Civilized Society	277
48. Advanced Materials - VI	281
49. Software Engineering Workshop	285
50. Muslim World Regression in Science Paying the Heavy Price	287
51. Role of Academies and Associations Important in Building Strong Traditions of Research	293
52. Pakistan From Promise to Performance	295
53. International Symposium on Mechanical Vibrations (ISMV)	299
54. Genetics and Biomedical Sciences Science of the 21st Century	301

## CONTENTS

iii

55. The Role of the Islamic Development Bank in Science, Engineering and Technology for Socio-Economic Development in the Islamic World	303
56. Materials The Agents of Change	315
57. Dr. A.Q. Khan Research Laboratories Kahuta - Service with Dedication	319
58. Pakistan Needs Optimum Defence Capabilities	325
59. Modern Age is the Age of Computers	327
60. Software Industry One of the Most Important and Lucrative Industries of the Time	331
61. Philosopher Conceives, Scientist Implements	333
62. Let the Research Organizations Come Closer to the Industrial Sector	335
63. The Prospects for Development of Modern Technology for Prosperity and Security of Pakistan	337
64. Science Humanity's Joint Heritage	343
65. Advanced Materials - VII	347
66. We Need Skilled and Highly Educated Technical Workforce	351
67. Science and Technology - The Key to Prosperity of the Ummah	353
68. Science, Engineering and Technology: The Key to the Future Prosperity and Strength of the Ummah	363
69. International Seminar on Natural Hazards Monitoring	375
70. Annual Convocation: Information Technology Institute College of Advanced Technologies	377
71. The Need for Creating a Computer-Friendly Culture in Pakistan	381
72. 3rd International Symposium on Mechanical Vibrations	385
73. Engineering Materials: The Driving Force of Technology in the Islamic World	387
74. 12th IAS science conference	393
75. Convention of Scientists on the Occasion of the World Science Day for Peace and Development	397
Appendix	403
Index	507