

Professor Saiyed Izhar Husain*

(April 06, 1935 – May 20, 1994)

Born on April 06, 1935 at Lucknow, Professor Saiyed Izhar Husain passed his High School and Intermediate Examinations in 1949 and 1951, respectively, securing distinction in all subjects. He graduated in 1953 from Lucknow University, topping the list with four Gold Medals and did M.Sc. in 1955 from Lucknow University, obtaining a record number of marks—a record which still stands. He obtained his Ph.D. degree from Delhi University in 1957, in General Theory of Relativity, under the supervision of Professor R. S. Mishra. He then was awarded Government of India Scholarship to proceed to France for Dr. e. Sc., which he obtained in 1960 in Relativity Theory under the supervision of Professor Andre Lichnerowicz.

On his return from France, Prof. Husain joined University of Gorakhpur as a Pool Officer for a short period (March 1961-May 1961) and in June 1961 he joined Gujrat University, Ahmadabad as a Reader in Mathematics. He was appointed as Professor and Head of the Department of Mathematics at Regional Engineering College, Srinagar in May 1965 and worked in that capacity till October 1970. He visited Tabrez University, Iran as a visiting professor for a period of two years before he joined Aligarh Muslim University (AMU) as a Professor and Head of the Department of mathematics on October 30, 1972 where he served as the head of the department till June 14, 1984. He was the Dean, Faculty of Science during July 1987-July 1989. He had to his credit a large number of publications in national and international journals of repute. He also attended a number of national and international seminars, symposia and conferences, etc. in India and abroad; and also presided over sessions at various conferences of Indian Mathematical Society and Indian Science Congress. He was the president of Indian association for General Relativity and Gravitation (IAGRG). He has as many achievements to his credit as one can not think of easily. However, some of his important achievements are as under:

Professor Husain was an elected Fellow of National Academy of Science since 1967. He continued to be Member of National Board of Higher Mathematics (NBHM) till his death in 1994; Member of UGC; Member of High Power Committee of UGC on Financing of Higher Education; Member of UGC National Coordinating Committee on Relativity and Cosmology; Convener of Indian National Mathematical

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Olympiad; Member of Central Advisory Board of Education; Members of Committee of Indo-German, Indo-French Academic Exchange Programme; Members of NCERT, CSIR, COSIST Committee of UGC and DST; Member of Bhatnagar Award Committee; Member of IGNOU, NEIPA, INSA and IUCAA; Member of National Board on Teacher's Qualifications etc. appointed by Ministry of Education. Professor Husain was awarded Distinguished Indian Mathematician Award by Indian Mathematical Society. He was so much convinced about the place and time of death that during his disastrous illness he visited France in November 1993 where he delivered an Invited Lecture at the French national Academy of Science a rare honour for an Indian. He was very well known in all Mathematical Societies and Bodies and through his continuous efforts and sincerity, he brought the name of AMU and the Department of Mathematics to new heights on the Mathematical Map of India and that of the world. It was totally due to his efforts and interest that the Department of Mathematics at AMU got the status of Department of Special assistance (DSA) and received the special grant in the form of COSIST programme.

Although Prof. Husain was aware of the fact that he was suffering from a deadly disease, he continued to contribute to the progress of the department and that of the university with the same enthusiasm. He was the pillar of optimism. During his illness he never reflected any sign of disappointment or anxiety. He was a man of rare intellect, indomitable courage and lovable personality. Professor Husain was a good teacher and a sympathetic research guide. He was a good mathematician turned into a model mathematics teacher – a model worth imitating for every young university mathematics teacher. He was loved by his students and admired by his colleagues for his depth of learning and charming nature.

Research Publications of Prof. S. Izhar Husain

1. Projective Change of affine connexions in Einsteins unified field of theory. Tensor, Japan, Vol. 6, 1956 (with R. S. Mishra).
2. Conservation laws in Bonnors unified theory II. Nuovo Cimento, Italy, Vol. 4, 1956.
3. On unified theory of gravitation and electromagnetism I. Tensor , Japan, Vol. 6, 1956.
4. Ibid-II. Tensor , Japan, Vol. 7, 1957.
5. Sur les discontinuities de tenseur du Courbure. Comptes Rendus, Paris, 246, 1959.
6. Ibid-System faible des equations. Comptes Rendus, Paris, 246, 1959.
7. Sur la propagation des discontinuities de tenseur de conbure. Comptes Rendus, Paris, 248, 1959.

8. La Radiation totals en theorie unitaire Comptes Rendus, Paris, 250, 1960.
9. Sur les ondes et radiation totale en theorie unitaire. These, Sorbonne, 1960.
10. On waves and total Radiation. Tensor , Japan, Vol. 18, 1966 (with R. L. Joshi).
11. On fourth order tensor. Tensor , Japan, Vol. 18, 1966 (with R. L. Joshi).
12. Algebraic classification of curvature tensor. Proc. Nat. Acad. Sci. India 39(A), III (1969) (with D. N. Sharma).
13. Gravitational and total Radiation. Proc. IInd National Conf. on Mathematics, Iran 1971.
14. Bianchi and Veblen Identities in a generalized Finster space. J. Tabriz Univ. Vol. 1 No. 2, 1972 (with H. L. Warikoo).
15. On a three brackets. ICTP, Preprints Trieste, Italy, 1972 (later published in J. Tabriz Univ. Vol. II, 1973) (with B. A. Saleemi).
16. Semi-Symmetric metric connexions in almost contact manifolds. Tensor (N.S.), 30 (1976) 133-139 (with Sharfuddin Ahmad).
17. Curvature tensors of Semi-Symmetric connexions in almost contact manifolds. Tensor (N.S.), 31 (1977) (with Sharfuddin Ahmad).
18. On a Semi-Symmetric connexion in almost contact manifolds. Prog. Math. (1978) (with Sharfuddin Ahmad).
19. Curvature tensor of Pseudo-metric Semi-Symmetric connexions in an almost contact metric manifold. Publ. de L Inst. Math. 23(37) (1978), 163-167 (with Sharfuddin Ahmad).
20. On almost paracontact manifolds Alig. Bull. Seminar on Functional Analysis and Differential Geometry, 1978 (with Sharfuddin Ahmad).
21. Hypersurfaces of almost product manifolds. Tamkang J. Math. 10 (1979), 169-181 (with Sharief Deshmukh and Sharfuddin Ahmad).
22. On para-Sasakian manifolds. Ind. J. pure. appl. Math. 11 (1980), 845-853 (with Sharfuddin Ahmad and Sharief Deshmukh).
23. Invariants of curvature tensor and gravitational radiation in general relativity. Indian J. Pure. Appl. Math. 8 No. 6 (1977) 656-662 (with Zafar Ahsan).
24. Null electromagnetic field and Nijenhuis tensor in general relativity. Abstracts – 8th annual conference of Indian Association for general relativity and gravitation (1977-1978), P. 20 (with Zafar Ahsan).

25. Invariants of curvature tensor and gravitational radiation in general relativity Proc. Inter. Symp. on Relativity and Unified field theory (1975-76) 231-234 (with Zafar Ahsan).
26. Collineation in null electromagnetic field in general relativity. Gravitation, Quanta and the Universe-Ed-by Prasanna et al. Wiley Eastern Ltd. (1980), P. 301 (with Zafar Ahsan).
27. On (F,g,r,S) -structure in general relativity. Indian J. Pure. Appl. Math. II No. 6 (1980), 819-827 (with Zafar Ahsan).
28. Null electromagnetic field, total gravitational radiation and Collineation in general relativity. Annali di Mat. Pure ed Applicanta, CXXVI (1980), 379-396 (with Zafar Ahsan).
29. A differentiable Structure on the Space-time manifold corresponding to the state of total radiation, ICTP Int. Reprint IC/81/162 (1981), Italy (with Zafar Ahsan).
30. Para-Sasakian Manifolds isometrically immersed in spaces of constant curvature. Kyungpook J. Math. (1980) (with Sharief Deshmukh and S. Ahmad).
31. Para-Sasakian Manifolds-II, Aligarh Bull. Math. (1980) (with Sharief Deshmukh and S. Ahmad).
32. Almost contact structures induced by a conformal Transformation. Publ. de L' Inst. Math. 32 (45), 1982, 155-159 (with A. Sharfuddin).
33. On totally Real Bisentential Curvature of Pseudo-Kahler Manifolds. J. Mathematical Science, Vol. 16-17 (1981-82), 160-164 (with R. K. Nagaich).
34. Basic Pre- Kahler Structures on differentiable manifolds. Journal of National Academy of Mathematics Vol. I (1983), 41-50 (with R. K. Nagaich).
35. Some Characterizations of Pseudo-Complex Space forms. Communications de la Faculte des SC. l' Univ. D' Ankara Serie A1, Tome 33, Annee 1984 (with R. K. Nagaich).
36. Constancy of holomorphic sectional curvature in Pseudo-Kahler manifolds. Ibid. 1984 (with R. K. Nagaich).
37. Almost Kahler Manifolds of constant holomorphic sectional curvature. Ibid, 1984 (with R. K. Nagaich).
38. Indefinite K-space of constant Holomorphic Sectional Curvature, Aligarh Bull. of Math., Vol.11 (1986), 41-48 (with R.K. Nagaich).

39. Almost product structure in tangent bundles, *Aligarh Bull. of Math.*, Vol.11 (1986), 23-30 (with R. K. Nagaich).
40. An alternative proof of a theorem of Farran. *Math. Chronicle* 1985 (with R. K. Nagaich).
41. Submersions of CR-submanifolds of a Kahler manifold. *Indian J. Pure. Appl. Maths.*, 19 (12), (1988) 1185-1205 (with M. S. Deshmukh and Shahid Ali).
42. Submersions of CR-submanifolds of a nearly Kahler manifold I, *Radovi Matematički*, Vol. 7 (1991) (with Shahid Ali).
43. CR-submanifolds of Sasakian manifold. *Review of Research Fac. of Sc. Yugoslavia* 15 (1985), No. 1, 263-278 (with M. Hasan Shahid).
44. CR-submanifolds of a nearly Kaehler manifold. *Ind. J. Pure Appl. Math.* 18 (1987), 979-990 (with M. S. Deshmukh).
45. Totally umbilical CR submanifolds of a Kaehler manifold, *Kodai Math. J.* 9 (1986), 425-429 (with M. S. Deshmukh).
46. Invariant and non-invariant hypersurfaces of almost para-contact manifolds, *Alig. Bull. Math.* 11 (1986), 31-40 (with M. S. Deshmukh and Sharafuddin Ahmad).
47. CR-submanifolds of Bockner-Kahler manifold. *Indian J. Pure. and Appl. Maths.* 17 (1987) No. 7, 605-610 (with M. Hasan Shahid).
48. Generic submanifold of a locally conformal Kahler manifold. *Soochow J. of Maths.* Vol. 14 (1988) No.1, 11-17 (with M. Hasan Shahid).
49. Reduction in co- dimension of mixed foliate semi-invariant submanifolds of Sasakian manifold, *Riv. Mat. Univ. Parma* 1 No.5 (1992) 147-153 (with V. A. Khan and S. M. Khursheed Haider).
50. On the integrability of distributions on a CR-submanifold, *Anal.Sin.Ale.Uni. Al Cuza IASI*, 38 (1992), 367-378. (with V. A. Khan and Khalid Ali Khan).
51. Totally umbilical semi-invariant submanifolds of a Sasakian manifold, *Tamkang J. Math.* 24 No.3 (1992) 161-172 (with V. A. Khan and S. M. Khursheed Haider).
52. Totally umbilical CR-submanifold of a Kaehler manifold, *Tamkang J. Math.* 24 No.1 (1993), 43-49. (with V. A. Khan and S. M. Khursheed Haider).
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54. CR-Submanifolds of Six-dimensional Sphere. International J. of Math. Sc. Vol. 18 No. 1, (1995), 63-66 (with M. Hasan Shahid).

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