SUPER MAGIC SQUARE

To bring our best wishes to you for the year 1998, we crafted this *Super Magic Square* with an extra large portion of magic. The magic square for 1988 is a rational construction, based on Nārāyaṇa Paṇḍita and Jafar Sharif. The former taught how to construct a square by proceeding according to the "Knight's Move" in chess. This works well for numbers divisible by five. Jafar Sharif in the last century provided a method for those numbers having a remainder after division by five.

In ordinary magic squares, the numbers in all the cells of each horizontal row, those in each vertical column and also those in either diagonal yield the same sum. In our Super Magic Square also the sum of the five numbers in each horizontal row (eg. 393 + 400 + 406 + 412 + 387), in each vertical column (eg. 393 + 407 + 389 + 398 + 411) and in either diagonal (i.e. 393 + 408 + 402 + 309 + 405 and 387 + 394 + 404 + 411) indicate the year 1998.

But there is plenty more magic in our Super Magic Square. Take any shorter parallel to a diagonal and its complement on the other side. The sum of the numbers in these five cells in again 1998 (eg. 389 + 404 + 392 + 412 + 401, or 400 + 407 + 409 + 390 + 392).

393	400	406	412	387
407	408	388	394	401
389	395	402	403	409
398	404	410	390	396
411	391	392	399	405

There is more magic still. The sum of the numbers in any five cells forming a cross is likewise 1998 (eg. 388 + 402 + 410 + 395 + 403, or 400 + 408 + 395 + 407 + 388). So also the sum of the numbers in any five cells forming the letter X (eg. 408 + 402 + 390 + 394 + 404, or 402 + 390 + 405 + 409 + 392). The cross need not be a continuous figure, there can be breaks in the four arms (as in 406 + 402 + 392 + 389 + 409). The same is true of X (eg. 393 + 402 + 405 + 387 + 411).

The magic is by no means over. Take a part of the cross at the top (or the right margin) and the remaining part at the bottom (or the left margin) (eg. 400 + 406 + 412 + 388 + 392, or 407 + 389 + 398 + 395 + 409) you will also get the sum of 1998. This is so for x as well (eg. 400+412+404+390+392) or 407 + 398 + 394 + 409 + 390). For, unlike the common magic squares, this Super Magic Square does not terminate at the borders but flows on from the right-hand column to the left-hand column and from the top row to the bottom row. May your Happiness too flow on and on in 1998.

Courtesy : S.R. Sarma, & Renate Sarma, 31 Zakir Bagh, AMU, Aligarh 202 002

LATEST PUBLICATION ON HISTORY OF SCIENCE

HISTORY OF TECHNOLOGY IN INDIA
VOL. I

Editor

A.K. BAG

The History of Technology in India is planned in four volumes with an objective to know the nature of technological developments in India under the guidance of the National Commission for History of Science. The Volume I, presented here, is based on the analysis of major sources and the results of modern researches by different specialists in the period from Antiquity to 1200 A.D. The contributions spread over Stone & Bronze Age technologies and later technological developments, with special focus on Material Technology, Chemical and Medical practices, Textile Technology, Agriculture and Food, Town Planning, Building and Building, Materials, Irrigation Works, and Transportation. The Arts and Crafts section gives interesting information. The section on Units and Social factors, essential for technological activities have also been analysed with perspective details. The technological details with data, analysis, photographs, line drawings, and tables are the special features of this volume.

Indian National Science Academy, New Delhi, 1997. pp. X1+717, Figs., Plates, Maps, Illus, Index, Rs. 1200 & $ 350.

XIIITH TURKISH CONGRESS OF HISTORY

The International Congress of the Turkish Historial Society will organise its 13th meeting in October 1999, to commemorate the foundation of the Ottomon Empire which directed word history for 600 years.

The papers and discussions on this Occasion will make new contribution to the Science of history.

Papers from Scientific and researchers in all the disciplines are welcome and those willing to participate in the congress may write at the following address.

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