

**A PRELIMINARY STATISTICAL ANALYSIS OF
THE AIR TEMPERATURE IN COLOMBO**

T.K. Fernando and P. Dewundage
Dept. of Meteorology, Colombo 07.

The surface air temperature recorded at the Colombo Observatory during the 74-year period 1915-1988 was analysed. In order to find any trends in the series, the annual values of the mean surface air temperature anomalies were filtered using the nine-weight Gaussian filter, which allows values to be calculated over the period 1919-1984.

The time series so obtained indicated (a) four distinct warming phases from 1919-1925, 1934-1940, 1955-1967 and 1975-1980 and (b) two distinct cooling phases from 1925-1934 and 1946-1955. Another cooling phase from 1980-1984 was also evident.

The mean monthly maximum temperatures and the mean monthly minimum temperatures recorded during the above period were also analysed to find the year-to-year variability. This was found to be greatest in January (maximum temperature) and February (minimum temperature) and least in August (for both maximum and minimum temperatures).

- References: 1. Jones, P.D., Wigley, T.M.L., and Kelly, P.M. (1982). Variations in surface air temperatures: Part I. Northern Hemisphere 1881-1980. Monthly Weather Review, Vol. 110, No.2, 59 - 70.
2. Kelly, P.M., Jones, P.D., Sear C.B., Cherry B.S.G., & Tavakol, R.K., (1982). Variations in surface air temperatures : Part 2. Arctic Regions, 1881 - 1980. Monthly Weather Review Vol. 110, No.2. 71 - 83.