1020-40-161   **Madan Mittal*** (`mlmittal_iit@yahoo.co.in`), INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE, UTTRANCHAL, India. *Approximation of Functions(Signals)by Trigonometric Polynomials in L_p-spaces $(p \geq 1)$using Summability Techniques.*

The purpose of this talk is to discuss some of the results on the degree (or order) of approximation of a periodic function (signal) f(x) in L_p-spaces $(p \geq 1)$by trigonometric polynomials using summability(ordinary)-methods. It seems that these approximations have been just in front of every great mathematicians whose work has proved to be a part of the foundation leading to the establishment of, and major development in, Approximation- Theory e.g. Lebesgue, Jackson, Weirastrass, Fejer, Dirichlet, Zygmund, Weiner, Flett, Bernstein, Alexites, Prossdorff, Quade, Holland, Sahney, Tzimbalario, Moricz, Rhoades, Totik, Mazhar, Mahskar, Mohapatra, Chandra and Das are few of them whose work has given the shape in developing the subject. Holland has published a very nice survey paper on the subject and thus it seems to be appropriate to discuss some of the developments after Holland in the present talk. Also we aim to mention an application of these approximations in communication technology in the era of Information-Technology in view of Shannon sampling theorem. (Received August 26, 2006)