

abstract

Theory of approximations of functions had been studied throughout trigonometric polynomials, algebraic polynomials and nonlinear polynomials by number of research works; they also had been studied through Jackson and Bernstein theorems. The first person who invented the best approximation problem is the great Russian mathematician, **P. L. Chebyshev**, while working on a problem of linkages, devices which translate the linear motion of a steam engine into the circular motion of a wheel, this appears in his research, was presented to the Academy of Science in January 1853.

In our research we will introduce some definitions, properties, theorems and examples. That would be a good step for those who want to learn about **Approximation Theory**, and a study on converge periodic functions