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Parvateesam Murthy Penumathy* (ppmurthy@gmail.com), Department of Pure & Applied Mathematics, Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisga 495009, India. *Problems in Metric Fixed Point Theory and Applications*. Preliminary report.

Metric Fixed Point Theory and Applications coined when Banach(S. Banach, Surles operations dans les ensembles abstraits et Leur application aux equations integrales, Fund. Math.3(1922); 133 .. 181:(French)) proved a unique fixed point theorem in a complete metric space. Let T be a self mapping dened on a complete metric space satisfying: $d(Tx, Ty) \leq \alpha d(x, y)$ for all $x, y \in X$ and $\alpha \in (0, 1)$. Then T has a unique fixed point. The above inequality is very essential for proving convergence as well as for obtaining unique fixed point. I have been mainly inspired by the condition of Banach and wish to discuss some variety of results which are mainly generalizing and extending the above condition for the past NINE DECADES. I wish to discuss some of very interesting TOOLS (Ref : P. P. Murthy, Important Tools and Possible Applications of Metric Fixed Point Theory, Nonlinear Analysis, 44(5)(2001); 3479..3490.) for obtaining fixed points and common fixed points in some abstract spaces along with some possible applications. (Received March 09, 2016)