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Amit D Patel* (ptlamit83@yahoo.com), Department of Mathematics, S.V. National Institute of Technology, Ichchhanath, Surat, Gujarat 395007, India, **Ajay K Shukla** (ajayshukla2@rediffmail.com), Department of Mathematics, S.V. National Institute of Technology, Ichchhanath, Surat, Gujarat 395007, India, and **V K Katiyar** (vktmafma@iitr.ernet.in), Department of Mathematics, Indian Institute of Technology, Roorkee, Roorkee, Uttrakhand 247667, India. *AN APPLICATION OF BESSEL FUNCTION IN NARROWING SYSTEMS PROBLEM.*

Narrowing of pipeline network is an important aspect in drinking water distribution systems, Sewage system and in oil-well techniques. In the proposed problem, a flow equation in simple pipeline network has been studied to solve the velocity flow. The deposition causing narrowing has been replaced by using sinusoidal model with axial velocity. In this paper, we used MAPLE 11.02 for plotting the graphs. (Received August 13, 2009)