ON APPLICATION OF I. VEKUA METHOD FOR
NON-LINEAR SHALLOW CYLINDRICAL SHELLS

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In the present paper we consider the geometrically non-linear Shallow Cylindrical Shells when components of the deformation tensor have non-linear terms. By means of I. N. Vekua method two dimensional problems is obtained. Using the method of the small parameter approximate solutions of I. Vekua's equations for approximations $N = 0$ and $N = 1$ is constructed. The small parameter $\varepsilon = h/R$, where $2h$ is the thickness of the shell, R is the radius of the cylinder. Concrete problem is solved, when the components of external force are constants.