Multiferroic composites $x \text{Li}_0.1\text{Ni}_0.2\text{Mn}_0.6\text{Fe}_2.1\text{O}_4 - (1-x) \text{BiFeO}_3$ (LNMFO – BFO) ($x = 0.0, 0.1, 0.2, 0.3$) have been prepared by conventional solid state reaction technique. X-ray diffraction (XRD) analysis confirms the presence of both LNMFO and BFO pure phases in the LNMFO – BFO composite. The density of composites decreases with an increase of ferrite content. Microstructures of the composites are studied by Field Emission Scanning Electron Microscope (FESEM). From the FESEM observation, the grain size is observed to be increase with increasing ferrite content. The real part of the initial permeability and the maximum value of relative quality factor increase with ferrite content. The dielectric properties such as dielectric constant and dielectric loss are measured as a function of frequency. The complex impedance spectroscopy is used to distinguish between the grain and grain boundary contribution to the total resistance. Composites exhibit the typical magnetic hysteresis loops. The saturation magnetization and remnant magnetization increases with increasing ferrite phase as investigated by VSM measurement. Variation of magnetoelectric voltage coefficient ($\alpha_{ME}$) with dc magnetic field was also studied for all composite samples. The maximum value of $\alpha_{ME}$ ($126\text{mV/cm Oe}$) was observed for $y = 0.1$. 

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