In this study, colloidal behaviours of conducting polymer (CP) and chitosan (CS) multifunctional composite particles were investigated by using electrokinetic measurements. The effects of pH, electrolytes, surfactants and temperature on electrokinetic properties were determined as a function of \( \zeta \)-potential of the colloidal dispersions. The obtained result showed that the zeta (\( \zeta \))-potential of CP increases to the higher positive region due to interaction with polycationic CS. Isoelectric points (IEP) of the CP/CS composite are also shifted to higher pH values. The positive \( \zeta \)-potential of the composite shifts to more positive regions when the electrolyte valence and cationic surfactant concentration are increased. Also, these \( \zeta \)-potential value shifts to negative region with the addition of anionic surfactant. Temperature affects the \( \zeta \)-potential of the CP/CS dispersion. As a conclusion, colloidal behaviours of CP/CS composite particles can be altered by using different charged molecules. Therefore, CP/CS composite particles could be a good adsorbent for separation process.