Abstract

$Z_pZ_p[v]$-Additive cyclic codes of length (α,β) can be viewed as $R[x]$-submodules of $Z_p[x]/(x^\alpha-1)\times Z_p[x]/(x^\beta-1)$, where $R=Z_p+vZ_p$ with $v^2=v$. In this talk, we determine the generator polynomials and the minimal generating sets of this family of codes as $R[x]$-submodules of $Z_p[x]/(x^\alpha-1)\times Z_p[x]/(x^\beta-1)$. We also determine the generator polynomials of the dual codes of $Z_pZ_p[v]$-additive cyclic codes. Some optimal $Z_pZ_p[v]$-linear codes are obtained from $Z_pZ_p[v]$-additive cyclic codes. Moreover, we get some quantum codes from $Z_pZ_p[v]$-additive cyclic codes.