1067-35-450 **Jaffar Ali*** (jahameed@fgcu.edu), 10501 FGCU Blvd. S, Fort Myers, FL 33965, and **Ratnasingham Shivaji**. *Positive Solutions for an Elliptic Bi-variate Reaction Systems with Combined Nonlinear Effects.*

Consider the system

$$-\Delta_p u = \lambda f(v, w) \quad \text{in } \Omega$$
$$-\Delta_p v = \lambda g(w, u) \quad \text{in } \Omega$$
$$-\Delta_p w = \lambda h(u, v) \quad \text{in } \Omega$$
$$u = v = w = 0 \quad \text{on } \partial\Omega.$$

where Δ is the Laplacian operator, λ is a non-negative parameter, Ω is a bounded domain in R^n with smooth boundary $\partial\Omega$ and $f, g, h \in C([0, \infty) \times [0, \infty))$. We prove existence and multiplicity for this system under some combined sub-linearity conditions.