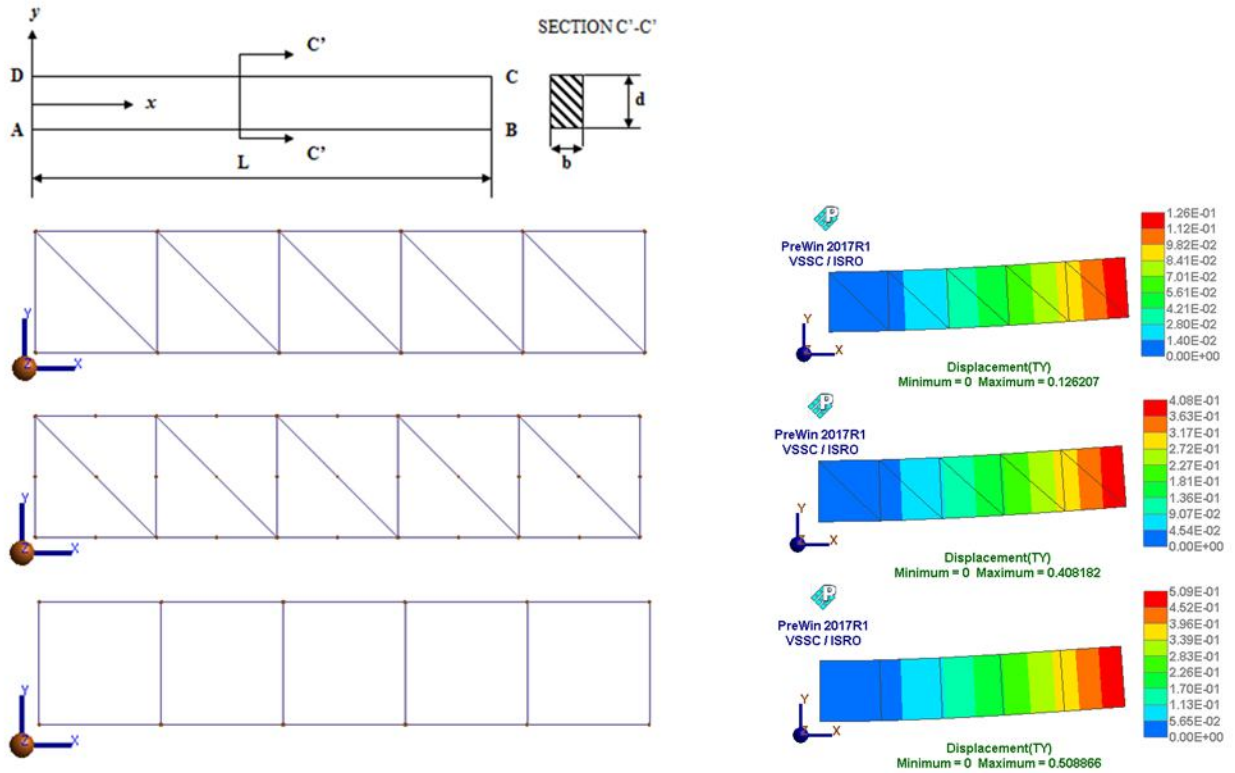


Static analysis of continuum beam with tip load



Load	:	Point load of 1000 N in the y direction at point B			
Boundary condition	:	$U_x = U_y = 0$ along edge AD			
Material property	:	$E = 200 \text{ GPa}$, $\nu = 0.3$			
Geometric property	:	Thickness $b = 5 \text{ mm}$, depth = 20 mm, length = 100 mm			
Element type	:	Case 1 Plane stress 3-node triangles			
	:	Case 2 Plane stress 6-node triangles			
	:	Case 3 Plane stress 4-node quadrilateral			
Finite Element Statistics		Number of elements	Number of nodes	Degrees of freedom	
	:	Case 1	10	12	20
	:	Case 2	10	33	60
	:	Case 3	5	12	20

Tip displacements(mm)			
Cases	NAFEMS	FEAST ^{SMT}	NASTRAN [®]
1		0.13	0.13
2	0.50	0.41	0.51
3		0.51	0.51