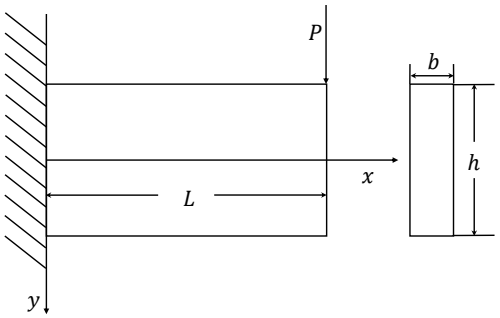

Figure 1. Thick cantilever beam

Using the Timoshenko beam theory, the beam's tip deflection along the y-axis:

$$u = \frac{P}{3EI}\left[(4+5\nu)\frac{h^2 L}{4} + 2L^3\right] \tag{1}$$

where $I = bh^3/12$.

The marginal distributions of the inputs:

Table 1. Statistics of model inputs

Model input	P/kN	E/GPa	ν	b/mm	h/mm	L/mm
Mean value	2.5	200	0.225	1.0	3	3.5
Standard deviation	0.25	20	0.0225	0.1	0.3	0.35

Table 2. Correlation matrix of model inputs

Model input	P/kN	E/GPa	ν	b/mm	h/mm	L/mm
P/kN	1.000	0.174	0.451	0.082	-0.134	0.004
E/GPa	0.174	1.000	-0.800	0.059	-0.125	-0.082
ν	0.451	-0.800	1.000	-0.004	0.033	0.080
b/mm	0.082	0.059	-0.004	1.000	-0.105	-0.400
h/mm	-0.134	-0.125	0.033	-0.105	1.000	0.279
L/mm	0.004	-0.082	0.080	-0.400	0.279	1.000