







#### IV. CONCLUSIONS

Numerical and theoretical investigation on the flexural behaviour of cold formed steel built up i beam with drop web flexural members has been presented in this paper. The fe model of flexural members were developed and verified by comparison of experimental results reported by cheng yu and BenjaminWw. Schafer (2006) [1] in terms of moment capacities using fe software abaqus. Having validated the fe model, further numerical analyses were conducted with wide range of section geometries. Then the numerical results were compared with the design strength predicted by effective width method as per AISI s100:2007. Finally, based on the comparison of results, the following conclusions are drawn.

1. The impact of changing geometric properties of the cold-formed built up i beams, ultimate moment carrying capacity calculated by abaqus (mfea) decreases with increase in depth of the section due to inadequate stiffener.
2. Introducing a drop in web increases the moment carrying capacity of the section.
3. For sections having higher depth, the empirical equations given by codal provisions are required to modify to study the flexural behavior of the built up sections.
4. Based on the comparison of results between finite element analysis and AISI (EWM), codal results are conservative for the sections studied with lower depth.

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