

# WEAK COLUMN BASE CONNECTIONS FOR STEEL MOMENT FRAMES

**MONDAY MAY 8, 12 PM – 12:50 PM**

**LOCATION: SME 248**

**[HTTPS://UCSD.ZOOM.US/J/98733856261](https://ucsd.zoom.us/j/98733856261)**

## Abstract:

Column base connections are arguably the most important connections in steel buildings, transferring loads from the entire structure into the foundation. At the interface of steel and concrete, these connections are complex in terms of behavior, design, as well as structural interactions with the building frame. This lecture will address “Weak” column base connections for seismic conditions, wherein the base connections can be designed to sustain large inelastic rotations. This contrasts with the common practice of designing the base connections to be stronger than the attached column. Results from large scale experiments, simulations (finite element as well as nonlinear time history) will be presented. Prospective developments in base connection design will be foreshadowed, including a revision of the AISC Design Guide One, and the use of dissipative base connections in seismic design.

## Speaker Biography:

Amit Kanvinde's research is focused on the seismic response of steel structures and connections. He is the co-author of the column base plate example (for Steel Moment Frames) in the SEAOC Seismic Design Manual, and is the lead author of the next edition of AISC's Design Guide One on column base connections. His research is cited in numerous standards, and has been recognized by various awards from AISC including the T.R. Higgins Award (2022), and the Special Achievement Award (2017) and others from ASCE, including the Walter Huber Research Prize (2016), and the State of the Art of Civil Engineering Award (2018), and the Norman Medal (2008).



**PROFESSOR AMIT KANVINDE**

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