AI Planning: Theory and Applications

Dana S. Nau
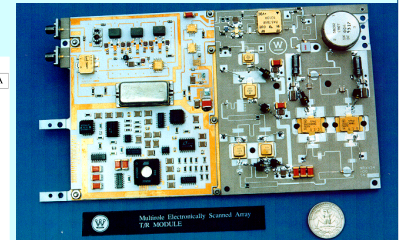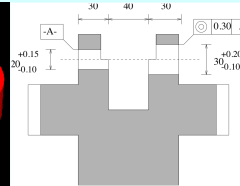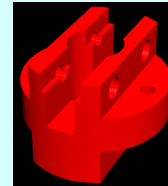

Other current and former ISR faculty:

- John Baras
- Michael Ball
- Michael Fu
- S. K. Gupta
- James Hendler
- Jeffrey Herrmann
- Steve Marcus
- Ioannis Minis
- V. S. Subrahmanian
- Guangming Zhang

Process planning and manufacturability analysis

- SIPP (1985), IMACS (1992), EDAPS (1996), IPPD (1998)
- Used at NIST, General Motors, …
- Best paper, *ASME 1994 CIE Conf.*

HTN Planning Formalism and UMCP Algorithm (1994)

- Has influenced nearly all subsequent R&D on HTN planning
- *ICAPS* 2009 Influential Paper Honorable Mention

SHOP and SHOP2 configurable planning systems

- *2002 International Planning Competition* award
- open source, > 13,000 downloads
- used in many hundreds of projects worldwide

Bridge Baron

- 1997 world computer bridge champion
- articles in *Wash. Post, N.Y. Times*
- highlighted on NSF's web site

Automated Planning: Theory and Practice (2004)

- First comprehensive textbook on AI planning
- The standard textbook on its topic