



COLLEGE OF ENGINEERING  
DEPARTMENT OF MECHANICAL ENGINEERING  
5100A ETCHEVERRY HALL

BERKELEY, CALIFORNIA 94720-1740

Professor David A. Dornfeld  
(510) 642-0906; FAX: (510) 643-7463  
dornfeld@ME.berkeley.EDU

March 11, 2005

RE: Consortium on Deburring and Edge Finishing (CODEF)

Consortium Members and Friends:

The Consortium on Deburring and Edge Finishing (CODEF) at the University of California at Berkeley was formed over a decade ago to address problems related to deburring and finishing of precision workpieces as well as develop strategies, based on models of burr and breakout formation, to assist the engineer in design and process planning to minimize or avoid burrs altogether. This consortium is designed to be industry driven with an emphasis on relevance to industrial problems and technology transfer. This year's meeting will have a special focus on issues of cleaning and cleanability in mechanical part manufacturing.

The next meeting of the consortium is scheduled for Friday, March 11, 2005 and will be held on the University of California campus in Berkeley. The meeting is designed to update member and interested companies on recent progress and provide an opportunity to discuss research directions and objectives. If you haven't attended earlier meetings this is a perfect opportunity to join industry colleagues to hear about the work of the consortium at Berkeley and jointly with industry. An agenda for the meeting is attached. Instructions for getting to Berkeley and area hotels along are available on our website <http://lma.berkeley.edu> under CODEF.

The morning and early afternoon sessions of the meeting are open to all attendees. We invite guests to present information relative to burrs and burr prevention as well (contact me for details). There is a closed session for members only in the afternoon but at that time we will also have an informational session on CODEF for those who are not familiar with our activities. CODEF members are invited to informally present work in progress on burr issues in the afternoon closed session and discuss research directions.

To attend the meeting on March 11th in Berkeley please contact me at (510) 642-0906 or, preferably, by e-mail at [dornfeld@berkeley.edu](mailto:dornfeld@berkeley.edu). We look forward to hearing from you regarding the CODEF meeting at Berkeley on March 11, 2005. We hope you can attend. Please feel free to extend an invitation to attend to any other of your colleagues or other companies you feel might be interested as well. Please have them contact me if they are interested.

Sincerely,

A handwritten signature in black ink that reads "David Dornfeld".

David Dornfeld  
Professor of Mechanical Engineering and  
Director of CODEF

Attach: agenda



**CODEF**  
**Meeting**  
**2005**

**University of California at Berkeley**  
Laboratory for Manufacturing Automation  
Prof. David A. Dornfeld, Director  
<http://lma.berkeley.edu>



**AGENDA**

Meeting of the Consortium on Deburring and Edge Finishing (CODEF)  
Friday, March 11<sup>th</sup>, 2005  
Fanuc Room, 6<sup>th</sup> Floor, Etcheverry Hall, University of California, Berkeley

9:00-12:20	Session I (Open Session) Welcome and introduction of attendees	
9:15-9:30	- Overview of CODEF activities	David Dornfeld
	- Review of work <i>in progress</i> since last CODEF meeting	
	- BurrExpert.com update	
9:30	Software development and empirical studies	
	- Tool path planning for power train components	Shantanu Tripathi
	- Comprehensive approach to burr prediction for face milling	Miguel Avila
	- Burr control chart and material properties	Corinne Reich-Weiser
	- Drilling burr analysis for tooling design	Joel Gardner
	- Process planning (P4)	Arvind Rangarajan
11:00	Coffee Break	
11:20	FEM analysis of burr formation	
	- Comparative software study for finite element analysis	Joel Gardner
	- Challenges in modeling machining of multilayer materials	Athulan Vijayaraghavan
12:00	Cleaning/cleanability issues in the automotive industry – an overview	Miguel Avila
12:30-1:30	Lunch	
1:30-2:30	Session II (Open Session – Industry presentation)	
	- To be scheduled (contact D. Dornfeld if you'd like to make a presentation)	CODEF Guests
3:00-3:15	Coffee Break	
3:15-5:00	Session III (Closed Session - CODEF members only)	
3:30	Member's Activities	
	- Informal presentations on work-in-progress	Member Companies
4:00	Additional discussion/review with members on research goals, deliverables:	
	- Software/database development strategy, Burr Expert	
	- Database/burr control chart development	
	- Terminology and standards	
	- New applications/commercialization	
	- Website/bulletin board for burr problems	
	<b>And/or</b> opportunity to exercise/demo tool path planning and database software	
3:15-5:00	Session IV (Open session for non-members if needed - location to be announced)	
	CODEF Background/Prior Research	
	- Overview of CODEF	
	- Analysis and classification of burrs in drilling and milling	
	- CAD burr expert development (burr minimization and process planning)	
	- FEM studies of burr formation	
	- Short courses and focused problem solving	
5:00PM	Adjourn	
6:00PM	Optional “no host” dinner for attendees, Pyramid Brewery	