

Members of the Press

Center for Advanced Die Engineering and Technology at Gifu University

- **The Center Invites Local Companies for “Reports on Practical Training in Die and Molding Technology / Masters Students Research Presentations”**
- **Students Present at the Seventh Student Die & Mold Grand Prix at INTERMOLD 2015 (Die & Mold Exhibition 2015, April 16 at Tokyo Big Sight)**

– As a hub for “knowledge,” the Center contributes to the local community by offering manufacturing education and technological development in the die and mold field. –

The Center for Advanced Die Engineering and Technology (Professor Minoru Yamashita, Director) at Gifu University (Location: Yanagido, Gifu City, Gifu Prefecture; Hisataka Moriwaki, President) invited local companies and municipal government officials to attend the “Reports on Practical Training in Die and Molding Technology / Masters Students Research Presentations,” where undergraduate students presented the dies they had designed and built as a culmination of their studies over the past half year, and graduate students who belong to the Center introduced their research. Students will also present these dies at INTERMOLD 2015 (the 26th Metal Stamping Technology Exhibition / Die & Mold 2015), which opens at Tokyo Big Sight on April 15, 2015 (with the announcement of prize winners on April 16).

Center for Advanced Die Engineering and Technology at Gifu University

URL: <http://www1.gifu-u.ac.jp/~gcadet/>

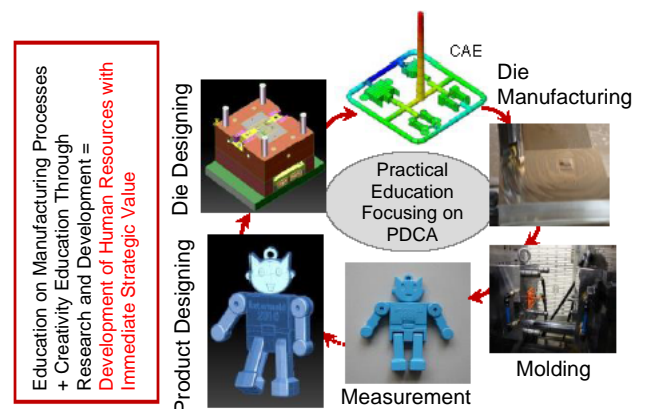
■ The Center for Advanced Die Engineering and Technology

Having been chosen as a recipient of funds from the Adjustment Funds for the Promotion of Science and Technology project by the Ministry of Education, Culture, Sports, Science and Technology, the Center for Advanced Die Engineering and Technology was established on the campus of Gifu University on July 1, 2006, as a knowledge hub that continuously and steadily advances and passes on die molding technology, as well as fostering creative and motivated young engineers. Through production of highly-skilled human resources for the industrial world by offering students practical education in the die molding field, continuing education for local engineers, and collaborative research with corporations, the Center strongly supports the promotion of manufacturing in the local community and in Japan.

■ Educational Programs

In an attempt to produce highly-skilled practicing managers in the field of manufacturing die molds, the Center has organized an educational program specializing in die molding for senior undergraduate students and master’s course students, offering them a comprehensive education in manufacturing processes and developing their creativity through research and development. We also offer an education in die molding mainly for engineers working at local companies in collaboration with the local chamber of commerce.

Practical education requires CAD/CAE software and numerical controlled machine tools for die machining of the same level as those used by corporations. The Center has received donations in the form of the latest numerically controlled machine tools and molding machines worth a total of 300 million yen from many corporations. In Japan, only Gifu University has the educational environment that enables advanced practical training using these machines and tools.



Die molding educational program with injection molding as an example

Business-Academia Collaboration

We conduct research projects in collaboration with manufacturers (approximately 20 projects per year) by engaging with local companies in the “Support Project for Enhancement of Strategic Base Technology” (commonly called “Sapo-In” or Supporting Industry Project) offered by the Ministry of Economy, Trade, and Industry.

On January 27 this year, we formally launched the Next Generation Die Workshop (some two-dozen die molding companies and our University). By consulting on technologies, providing information, and conducting technological seminars, we will be supporting the technological development of corporations.

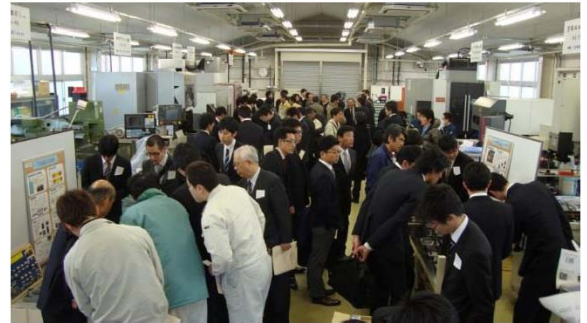


Reports on Practical Training in Die and Molding (March 5) (Die Molding Exhibited at INTERMOLD Technology and Masters Students Research Presentations)

This meeting was held with many attendees from local organizations and companies (51 from corporations, 5 from municipal governments and public research organizations, 1 from a non-profit organization, and 55 from our campus, with a total of 112), with the following schedule.

Schedule

- 1) 12:50 p.m. to 1:30 p.m.
Registration at die and molding factory, and exhibition of dies and molded products to be exhibited.
- 2) 1:35 p.m. to 1:40 p.m.
Greetings from the Center Director, and report on center activity.
- 3) 1:40 p.m. to 3:10 p.m.
Reports on practical training in die and molding (presentations by under graduate students)
Presentations by three teams focusing on press dies, injection dies, and molding dies respectively, followed by exchange of opinions.
- 4) 3:10 p.m. to 4:10 p.m.
Lecture “Cutting-edge manufacturing led by die technology” by Professor Hiroshi Yamagata of the Center
- 5) 4:10 p.m. to 4:50 p.m.
Research presentations (by posters, by first-year graduate students)



Exhibition at die and mold factory
(Students explain the manufacturing process.)

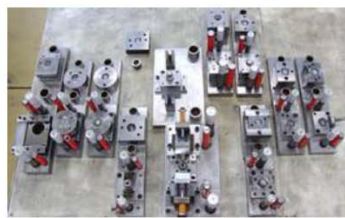
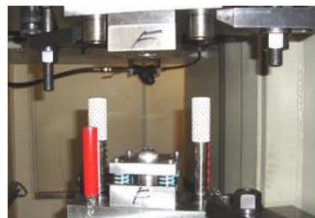


A presentation on die manufacturing

The press-die and the injection-die teams presented their dies to be exhibited at INTERMOLD. In the presentations, students explained to the attendees at the factory the processes of making the dies and the products that they had designed and built as a culmination of their studies from October to February. The theme of the press die molding team was a “bell,” a familiar object, while the theme of the injection die molding team was a “tea bag rest.” Both teams faced challenges in die design and precision machining.

Attendees including representatives from corporations asked them questions and made valuable comments regarding die design and forming. In the poster presentations on master’s dissertations, first-year graduate students stood by their own posters to explain the purpose of their research and details.

Theme of the press die team “The Bell” and a set of forming dies.



Left: Completed product (Press formed and caulked product)
Center: Press molding
Right: Forming dies of all stages

Theme of the injection die team “The Tea Bag Rest” and its die



Left: Completed product (tea bag rest)
Center: Injection molding
Right: Mold dies

■ Future Development of Educational Programs

We are planning to build on the current program of developing die molding professionals to develop it into a community-based program for die molding professionals who create innovations. We will be offering a new educational program that incorporates 3D printers to undergraduate students in master's course.

Our plan for undergraduate students in their senior year is to build and implement a program with practical training incorporating die manufacturing that follows the flow of the production process from design to manufacturing using 3D printers. For graduate students, we will be implementing a practical education program in which they will visit the workplaces of local companies to join their engineers for development of new products and technologies, in addition to the current practical education projects on campus.

■ INTERMOLD 2015 (The 26th Metal Stamping Technology Exhibition)

INTERMOLD 2015 (The 26th Metal Stamping Technology Exhibition) is an exhibition specializing in the latest die processing technologies, and is held every year alternately in Tokyo (Tokyo Big Sight) and in Osaka (Intex Osaka). Our University participates in the "Seventh Student Die & Mold Grand Prix" (we have been participating every year since the first year of the event) sponsored by the Japan Die & Mold Industry Association and held at this exhibition. Our students will be presenting the developed process and the product.

Name of Event: INTERMOLD 2015 (The 26th Metal Stamping Technology Exhibition) / Die & Mold Exhibition 2015

Date: Wednesday, April 15 to Saturday, April 18, 2015

Time: 10:00 a.m. to 5:00 p.m. (till 4:00 p.m. on the last day the 18th)

Venue: Tokyo Big Sight (3-10-1 Ariake, Koto-ku, Tokyo 135-0063)

Sponsor: Japan Die & Mold Industry Association

Operator: INTERMOLD Association

Official Website: <http://intermold.jp>

■ List of Donated Machines and Donors



Manufacturer: DMG Mori Seiki Co., Ltd.
Model: 5-Axis Control Machining Center
Model Number: NMV1500DCG
Donor: DMG Mori Seiki Co., Ltd.



Manufacturer: Sodick Co., Ltd.
Model: Linear Motor Drive Wire-Cut EDM
Model Number: AQ537L
Donor: Sodick Co., Ltd.



Manufacturer: Mitsubishi Electric Corporation
Model: Wire-Cut EDM
Model Number: FA10SM
Donor: Mitsubishi Electric Corporation



Manufacturer: JTEKT Corporation
Model: CNC Cylindrical Grinder
Model Number: GE3P-25 II
Donor: JTEKT Corporation



Manufacturer: Nissei Plastic Industrial Co., Ltd.
Model: Electric High-Performance Injection Molding Machine
Model Number: NEX110-12E
Donor: Nissei Plastic Industrial Co., Ltd.



Manufacturer: Okuma Corporation
Model: Vertical Machining Center
Model Number: MD-46VA
Donor: Okuma Corporation



Manufacturer: Kuroda Precision Industries Ltd
Model: Forming Surface Grinding Machine
Model Number: GS-45
Donor: Kuroda Precision Industries Ltd.



Manufacturer: Techno Washino
Model: Optical Precision Profile Grinder
Model Number: GLS-5T
Donor: Techno Washino



Manufacturer: Makino Milling Machine Co., Ltd.
Model: General-Purpose Milling Machine
Model Number: KE55



Manufacturer: Mitsubishi Electric Corporation
Model: Die-Sinking EDM
Model Number: EA12/E
Donor: Mitsubishi Electric Corporation



Manufacturer: Komatsu Industries Corporation
Model: Servo-Press
Model Number: H1F110
Donor: Pacific Industrial Co., Ltd.



Manufacturer: Nakashimada Engineering Works, Ltd.
Model: Microformer
Model Number: MF220
Donor: Meira Corporation

Accessories and Tools

Manufacturer: Matsui MFG Co., Ltd.
Model: Box Type Dryer
Model Number: PO-50-J
Donor: Matsui Manufacturing Co., Ltd.

Manufacturer: Matsui MFG Co., Ltd.
Model: Mold Temperature Controller
Model Number: MCL-25-X-J
Donor: Matsui Manufacturing Co., Ltd.

Manufacturer: Nabeya Co., Ltd.
Models: Magnetic Inserts, Surface Plates, Vises, Workbenches
Donor: Nabeya Co., Ltd.

■ The Center Presents a Report at the “Recreate People, People Recreate: A Community Creation Forum”

The Ministry of Education, Culture, Sports, Science and Technology will hold the forum on March 20 in Tokyo. The Ministry has been working on the “formation of a hub for creating human resources that will revitalize communities” program for the purpose of fostering human resources that will utilize the uniqueness and characteristics of universities and other institutions to revitalize local industries and meet community needs, as well as working locally to contribute to the revitalization of their communities. The past achievements in practical education of the Center were recognized, and we will be presenting a report in the “Leading Human Resources in Manufacturing” session, as well as leading the session.

「社会システム改革と研究開発の一体的推進」事業
地域再生人材創出拠点の形成

ひとを創る。ひとが創る。 地域創生フォーラム

日時 平成27年3月20日(金) 13:00~18:30 定員 300名

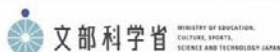
場所 **イノホール&カンファレンスセンター**
カンファレンスルームA・B・C・D・E
東京都千代田区内幸町2-1-1 飯野ビル4階
[アクセス] 東京メトロ日比谷線・千代田線「霞ヶ関」駅 C4出口直結
東京メトロ銀座線「虎ノ門」駅 9番出口 徒歩3分
<http://www.iino.co.jp/hall/access/>

入場料無料・事前申込制

・本フォーラムHPを経由して、当日の内容を
サイエンスチャンネルで公開します。(3月下旬~4月配信予定)

【お申し込み方法】
下記のサイトよりお名前・メールアドレスを明記の上お申し込みください。
<https://chikiforum2014.jst.go.jp/>
お申し込みいただいた個人情報は宛先に配達情報をお送りすることがございます。
あらかじめご了承ください。

【問い合わせ先】
(独) 科学技術振興機構 科学技術プログラム推進部
社会システム改革と研究開発の一体的推進
地域創生フォーラム事務局
電話: 03-5214-3403 E-mail: stsr@jst.go.jp



12:00	開場	
13:00	主催者挨拶	
13:10	プログラム報告	(独) 科学技術振興機構 プログラム主管 清水 了典
13:30	基調講演	慶應義塾大学社会科学部 教授 飯盛 義徳
14:00	休憩・移動	
14:15	フューチャーセッション	
	① 地域コミュニティ再生人材	
	② 里山・農山漁村振興人材	
	③ 6次産業・農業IT化人材	
	④ まちづくり・都市デザイン人材	
	⑤ ものづくりリーディング人材	
	⑥ ものづくり・ビジネスマーケティング人材	
16:15	休憩	
16:45	フューチャーセッション結果の報告	
	① 地域コミュニティ再生人材	
	② 里山・農山漁村振興人材	
	③ 6次産業・農業IT化人材	
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	⑤ ものづくりリーディング人材	
	⑥ ものづくり・ビジネスマーケティング人材	
	⑦ 大学と他のセクター間の連携	
17:55	講演：大学COC事業・大学COC+事業について	文部科学省 高等教育局大学振興課 大学改革推進室長 猪股 志野
18:05	総括コメント	(独) 科学技術振興機構 運営統括・プログラムディレクター 相澤 益男

※フューチャーセッションの進行・報告発表者については、当日会場にて配布するプログラムに記載いたします。

【会場案内】
イノホール&カンファレンスセンター
東京都千代田区内幸町2-1-1 飯野ビル4階

- 【利用可能路線】
- ・東京メトロ 日比谷線・千代田線「霞ヶ関」駅 C4出口直結
 - ・東京メトロ 丸の内線「霞ヶ関」駅 B2出口 徒歩5分
 - ・東京メトロ 銀座線「虎ノ門」駅 9番出口 徒歩3分
 - ・東京メトロ 有楽町線「飯田町」駅 5番出口 徒歩10分
 - ・山手線・京浜東北線・東横線・東横線 都営地下鉄浅草線、ゆりかもめ「新橋」駅 徒歩10分
 - ・都営地下鉄 三田線「内幸町」駅 A7出口 徒歩3分



Forum Announcement Material

■ Overview of the University

Name: National University Corporation Gifu University Representative: President Hisataka Moriwaki
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URL: <http://www.gifu-u.ac.jp>

■ Inquiries About This Press Release

■ Please contact the following if you have questions, wish coverage, or need information materials ■
PR Agent for Gifu University: CuA united inc. (Ask for Inoue)
Phone: 052-332-1334 / FAX: 052-308-3804 / Email: info@cua-united.com / URL: <http://www.cua-united.com/>