

# IMS in Japan

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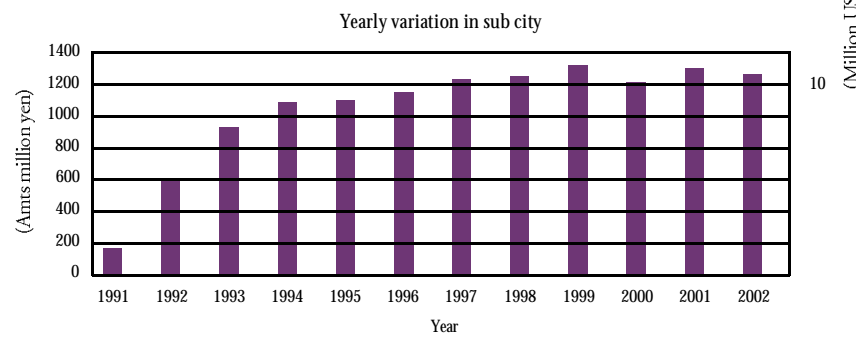
IMS Furukawa IMS MEMS

## IMS

IMS 26 IMS 7  
600 16% 108 가  
1995 가 IMS

1995 1,000  
IMS 2 2005 가

< 1 > IMS



- Manufacturing system & processes for sustainable development
- Information technology
- Emerging technology for new manufacturing

가 가 NT, BT, RT 가

- 1.
- 2.
- 3.

IMS 2 가

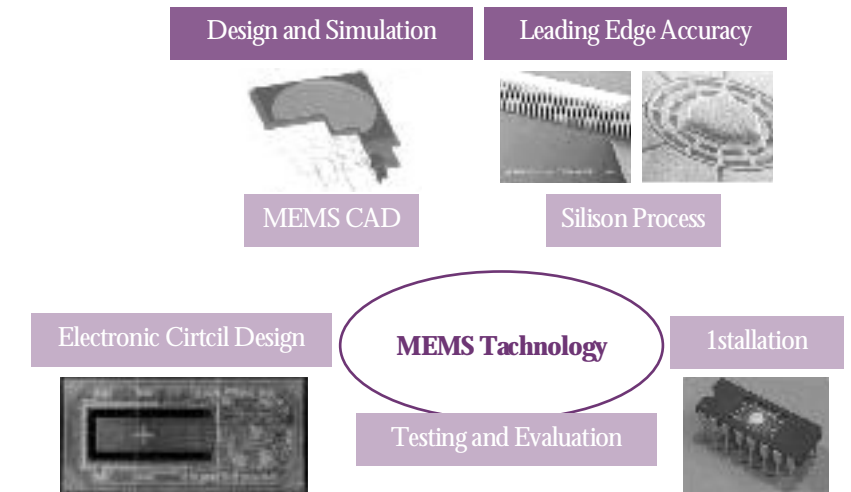
## MEMS

MEMS MEMS 10  
2005 120  
MEMS 가 가  
'Flexible Shape Machinery'  
Shape Machinery'  
'Solid  
< 1 >  
MEMS 가

Solid Shape Machinery	Heteronomy	Forced organization	Removing
Flexible Shape Machinery	Autonomy	Self organization	Deposition

MEMS < 2 > 5가  
IMS 5가 MEMS  
가 Foundry service가 In- house  
Out-sourcing Foundry service  
가 MEMS  
Optical switch, RF switch, Micro reactor, Micro fuel cell

< 2 > MEMS 5가



IMS  
 2  
 IMS ToR(Terms of Reference) , IMS IPR (Intellectual Property Rights) Provisions  
 IMS IPR Provisions  
 가 IMS .( )  
 \* Foreground:  
 \* Background Rights:  
 \* Background: Background Rights  
 Foreground가  
 가 Background Foreground Ownership  
 Licensing, 가 IMS 가  
 IMS 「 」

CCA(Consortium Cooperation Agreement)  
 가 CCA  
 CCA 가 가 Software source code  
 Background S/W source code  
 CCA CCA Model CCA  
 IMS 가 CCA  
 IMS (www.ims.org) , IMS IPR Working Group 가

<IMS >

Background	Ownership	- CCA Project
	Licensing	- R&D 가
Foreground	Ownership	- ( )가 가
		- 가 3
	Licensing	- (R&D or Commerce) 가
		- 가 3
		(CCA 가가 )

IMS-GEM

>[cyc@bezier.kaist.ac.kr]

10 Manufacturing, e-Transformation 가 e-Transformation 가 e-Manufacturing, e-Transformation IMS "GEM(Global Education in Manufacturing)" 2002 4 30 , EU, 20 GEM extended products (manufacturing strategy) (delivery mechanism) 10 GEM < -1> 7가 (knowledge area) 가 (course) (subject) GEM 가 GEM 가 2002 10 , 2002 11 Lehigh GEM GEM (Intelligent manufacturing system design)" -2 KAIST " IT " (domain knowledge), IT e- " e- " KAIST " e-Manufacturing Leadership KAIST IMS-GEM 가 eML , 2003 가 .

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(KAIST) eML (e-Manufacturing Leadership)

Knowledge Area	Title	Learning objectives	Skills developed
A	Development of extended products	Make the student familiar with the concept of extended products and introduce the student to effective tools for such development. Train the student in business aspects of products and associated services.	Technological Business
B	Digital business along the supply chain	Introduce the student to the concept of supply chain management. Give the student deep knowledge about electronic commerce and electronic work and discuss its application to supply chain management.	Technological
C	End of life planning and operation	Introduce the students to modern environmental and recycling technology. Train the student in decisions on technological, business and humanistic concerns for products and processes at end of life.	Technological Business Humanistic
D	Business operation & competitive strategy	Expose the student to modern thinking in productivity and competitiveness. Train student in business decisions, production and project management, performance and quality management and human aspects.	Technological Business Humanistic
E	Intelligent manufacturing processes	Give the student a thorough knowledge of the most common manufacturing processes and their application in intelligent manufacturing. Train the student in process selection based on economic and quality requirements.	Technological
F	Intelligent manufacturing systems design	Introduce the student to the concept of intelligent manufacturing and to integration aspects using ICT. Train the student in systems design under economical, technological and human considerations.	Technological Business Humanistic
G	Enterprise and product modelling and simulation	Train the student in modelling and simulation and its applications in intelligent manufacturing systems. Train the student in developing models and using them for decisions.	Technological

	Course Name	Subjects	# of Credits	Remarks
Course 1	Introduction to IMS Design	* Manufacturing systems * Concept of manufacturing intelligence * Conceptual framework for IMS * Enabling technologies for IMS * Design methodologies and principles	3	Compulsory
Course 2	Intelligent Information Systems for IMS	* Information Systems * Intelligence of information systems * Intelligent manufacturing information system * Design of intelligent information system	2 or 3	Elective
Course 3	Technologies for IMS	* AI algorithm and techniques * Data processing * Knowledge representation * Intelligent control and monitoring * Simulation for manufacturing	2 or 3	Elective
Course 4	Capstone Course in IMS Design	* By manufacturing type * By industry type * By supply chain type	2 or 3	Elective
Total			9 - 12	



# IMS

4	28~29	The 8th CIRP International Seminar on Computer Aided Tolerancing · : (Charlotte, North Carolina) · URL : <a href="http://www.mees.uncc.edu/CIRPcat2003">http://www.mees.uncc.edu/CIRPcat2003</a>
5	12~14	2003 International CIRP Design Seminar · : (Grenoble) · URL : <a href="http://www.3s.hmg.inpg.fr/ci/dn2003/index.html">http://www.3s.hmg.inpg.fr/ci/dn2003/index.html</a>
	12~14	IPMM '03 Nanotechnology for the 21st Century · : (Sendai) · URL : <a href="http://mining.ubc.ca/ipmm">http://mining.ubc.ca/ipmm</a>
	12~17	ICRA '03: IEEE International Conference on Robotics and Automation · : (Taipei) · URL : <a href="http://icra2003.org">http://icra2003.org</a>
	14~16	16 IMS ( California Monterey)
	20~22	EASTTEC 2003 Advanced Productivity Exposition · : (Massachusetts) · URL : <a href="http://www.sme.org/eastec">http://www.sme.org/eastec</a>
	22	CIRP seminar on life cycle engineering · : · URL : <a href="http://www.cirpcopenhagen2003.dk/">http://www.cirpcopenhagen2003.dk/</a>
	22~23	Advanced Microsystems for Automotive Applications - AMAA 2003 · : (Berlin) · URL : <a href="http://www.amaa.de/index_html">http://www.amaa.de/index_html</a>
6	3~5	CIRP International Seminar on Manufacturing Systems · : (Saarbruecken) · URL : <a href="http://www.crip-isms2003.uni-saarland.de">http://www.crip-isms2003.uni-saarland.de</a>
	10~12	Micro Manufacturing Conference & Exposition · : (Minneapolis) · URL : <a href="http://www.sme.org/micro">http://www.sme.org/micro</a>
	16~18	ICE 2003 - 9th International Conference of Concurrent Engineering · : (Finland) · URL : <a href="http://www.ice2003.org">http://www.ice2003.org</a>
	16~18	MIPE(Micromechatronics for Information and Precision Equipment) 2003 · : (Yokohama) · URL : <a href="http://www.jsme.or.jp/iip/english.htm">http://www.jsme.or.jp/iip/english.htm</a>

	24~27	ITEE'2003: 1st International NAISO Symposium on Information Technologies in Environmental Engine · : (Poland) · URL : <a href="http://www.icsc-naiso.org/conferences/itee2003">http://www.icsc-naiso.org/conferences/itee2003</a>
7	14~17	ICCM-14 The International Conference on Composite Materials · : (San Diego) · URL : <a href="http://www.sme.org/iccm14">http://www.sme.org/iccm14</a>
	26~30	CE2003: Concurrent Eng: Research and Applications · : (Madeira Island) · URL : <a href="http://isg.uninova.pt/ce2003">http://isg.uninova.pt/ce2003</a>

## IMS-EFSOT

<LG >[choilje@lge.com]

IMS  
EFSOT(Next Generation Environment-Friendly Soldering Technology) Kick-off Meeting

2 24~25  
Hitachi ( ) ,  
LG ,  
14 8  
EFSOT  
Hitachi K.Miyauchi  
Kick-off Meeting



가 LG  
"Pb-free soldering" (WP1)  
25 Hitachi 가 (Recycling) 가 ,  
가 .EFSOT  
(Inter-regional Meeting) 12