机械科学研究总院
China A

2011年度报告
Annual Report

机械科学研究总院
China Academy of Machinery Science & Technology

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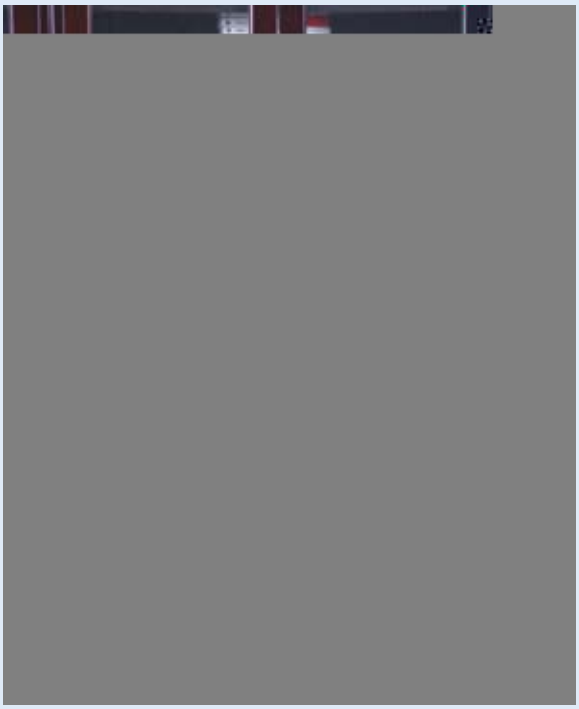

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18.39% 32.60% “ ”
39972 “ ”
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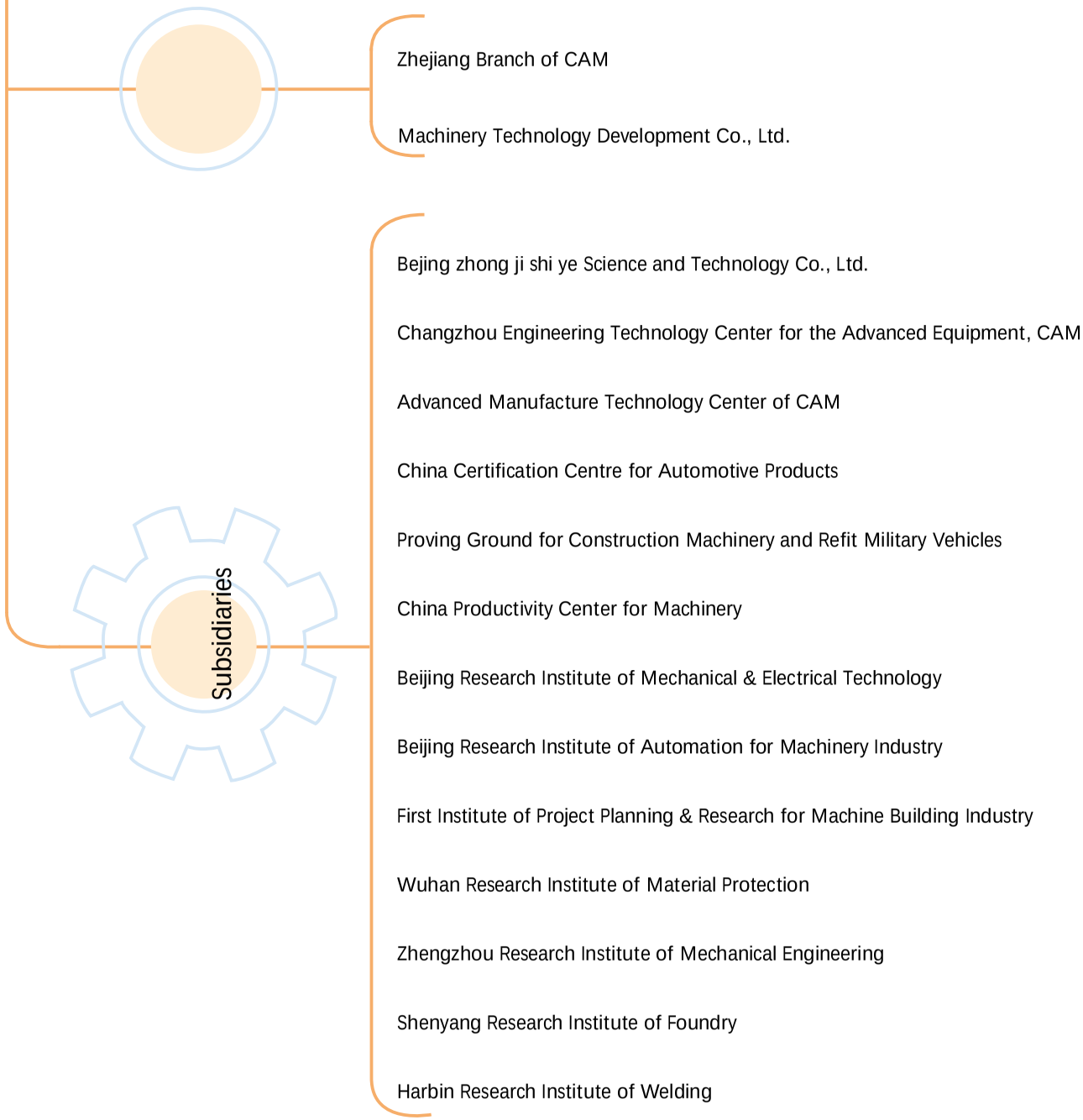
Message from the President

China Academy of Machinery Science and Technology (CAM) is a big state-owned enterprise of science and technology, and it is directly under the leadership of State-Owned Assets Supervision and Administration Commission of the State Council (SASAC). CAM was founded in 1956, and it has been dedicated itself to realizing the revitalization of the national manufacturing industry.

CAM has been committed to the research work on the common interest technology in the manufacturing industry for more than 50 years. Through a few of generations' endeavor, CAM has now formed two scopes of business including machinery equipment technology research and service and the related equipment manufacturing. In 2011, the total volume of assets of CAM was 5.105 billions (RMB


Zhejiang Branch of CAM
Machinery Technology Development Co., Ltd.
Subsidiaries
Bejing zhong ji shi ye Science and Technology Co., Ltd.
Changzhou Engineering Technology Center for the Advanced Equipment, CAM
Advanced Manufacture Technology Center of CAM
China Certification Centre for Automotive Products
Proving Ground for Construction Machinery and Refit Military Vehicles
China Productivity Center for Machinery
Beijing Research Institute of Mechanical & Electrical Technology
Beijing Research Institute of Automation for Machinery Industry
First Institute of Project Planning & Research for Machine Building Industry
Wuhan Research Institute of Material Protection
Zhengzhou Research Institute of Mechanical Engineering
Shenyang Research Institute of Foundry
Harbin Research Institute of Welding

Administration and Service Center for Retired People

Beijing Machinery Technology E-Popularity Co., Ltd.

Archives of Machinery Industry

Public Relations Department

Discipline Inspection and Audit and Supervision Department

Capital Management Department

Financial Management Department

Human Resources Department

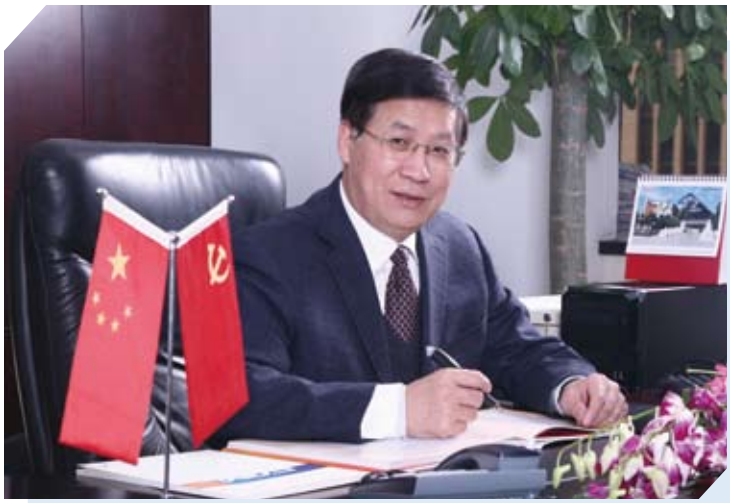
Planning Management Department

Science and Technology Development Department

General Affairs Department

The Members of Leading Team

Li Xinya President



Cao Shiqing Vice President

(General Affairs Department):

(Science and Technology Department):

(Planning Management Department):

(Human Resources Department):

(Financial Management Department):

(Capital Management Department):

(Discipline Inspection and Audit and Supervision Department):

(Public Relations Department):

2011
Main Economical Indicators and Fulfillments in 2011

2011 “ ” “ ”

35.24 2.46

1 2011

	265200	352430	132.89%	18.39%
	16680	24625	147.63%	32.60%
%	9.36%	13.82%	147.66%	2.09%
	11500	26084	226.82%	29.94%

New Contracts

2011 445741 15.52%

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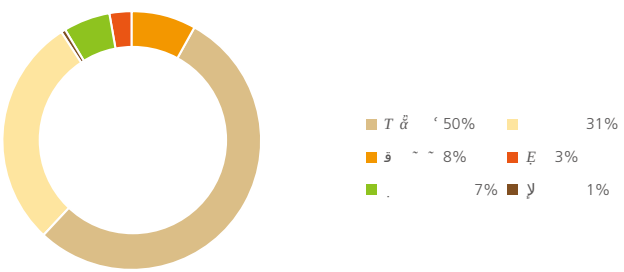
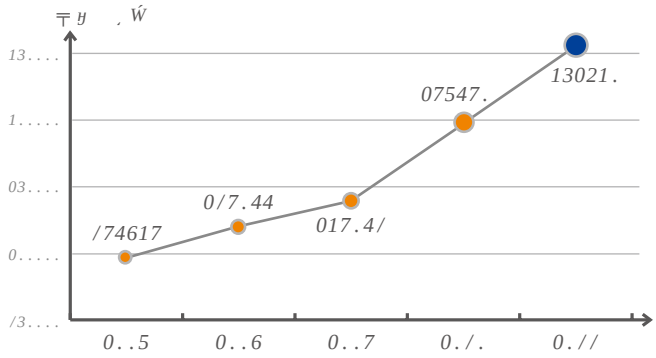
	38068	239039	128608	2829	24879	12318	445741



1

Economical Development in the Recent Five Years



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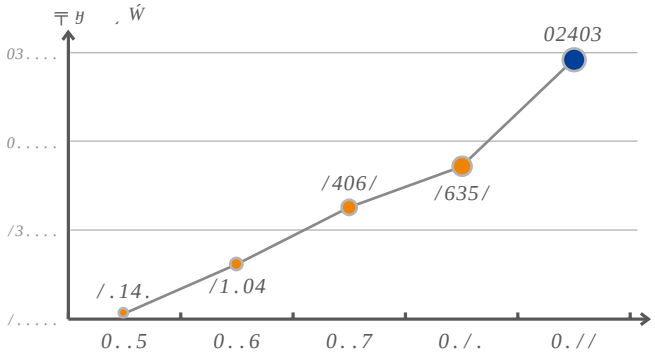

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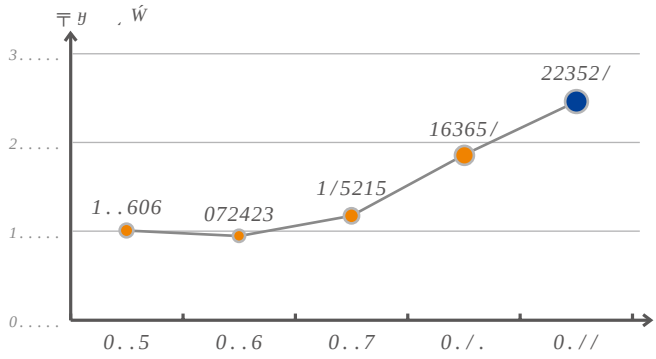
Total New Contracts



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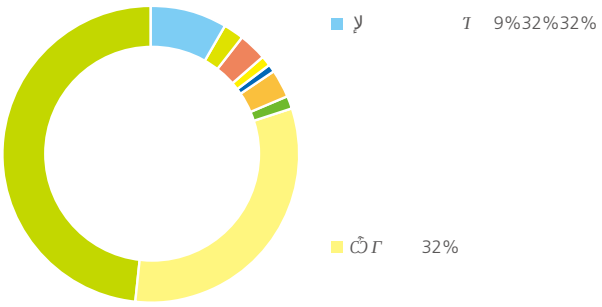

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62	CECSXXX 2010		
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71	GB/Z24636.1 4-2009		
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73	GB/T1182-2008 GPS		
74	GB/T3478.1 9-2008		
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Patents and the Software Copyrights

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6	RS10 V1.0	
7	MMCFORM V1.0	
8	MTD V1.0	
9	RAMM V1.0	
10	RS10 RS10/OPA V1.0	
11	DCPMonitor 1.0	
12	V1.0	
13	MTD V1.0	
14	RMPGMEDIT 1.0	
15	“ PIIA ”V2.0	

Science and Technology Organizations

2011 7 19

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1			111 150080 0451-86322012
2			17 110022 024-25851598
3			81 450052 0371-67710823

4			126 430030 027-83640412
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8			010-82285320
9			010-82285400
10			010-82285774
11			010-82285730
12			18 100083 010-62920654
13			010-62920613
14			2 100044 010-88301635 88301130
15			
16			01088301751
17			010-88301236
18			
19			010-88301134

The Advanced Manufacturing Technology

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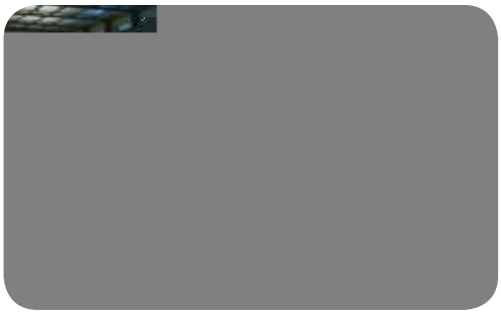

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New Materials and Engineering Application

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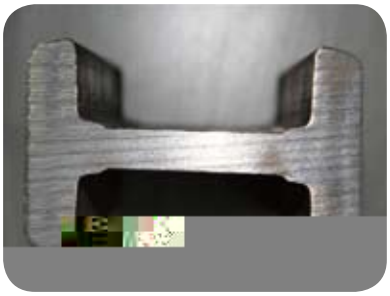

Information Technology of Manufacturing

RMES

Φ1219

3000km

AGV

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AGV

Modern Service

ICP

GB14023-2006

ESCI

100 μ s-100s

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Technology Services Units

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Productivity Promotion Centers

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Technical Committees of Standardization

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ISO/TC1
ISO/TC1 ISO/TC10/SC6 ISO/
TC10/SC6 2011 163 112

24		ISO/TC107	SAC/TC57	4	5
25		ISO/TC3	SAC/TC3	7	25
26		ISO/TC184	SAC/ TC159	11	0
27			SAC/TC74	3	9
28			SAC/TC75	5	3
29			BJW04	5	3
30			CMIF/ TC25	12	6
31			CMIF/TC7	19	2
				163	112

The Supervision and Testing Centers for the Products Qualities

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Certification Centers

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1		ISO9000 ISO14000 GB/T28001-OHSAS18000 QS9000	6684	8555	780	845
2		ISO9000 3C	1604	8084	220	386
			8288	16639	1000	1231

Engineering Construction Projects and Services

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Services Media

Periodicals

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1		111 150080 HJZZS@sohu.com	0451-86353779
2			0451-86323218
3			0451-86325919
4	—		0451-86323218
5		17 110022 jingyingb@chinasrif.com	024-25847830
6	CHINA FOUNDRY		
7		81 450052 jxcd@chinajournal.net.cn	0371-67710817
8			0371-67710821
9		126 430030 mp@csec-mp.com	027-83330037
10			027-83638752
11		1 100120 sunwei@riamb.ac.cn	010-82285770
12		1 100120 songjq@riamb.ac.cn	010-82285330
13		18 100083 clrcl@163.com	010-82415080
14		18 100083 sxgcxb@263.net	010-62912592
15		18 100083 jsrcl@vip.sina.com	010-82415083
16		18 100083 fst@263.net	010-82415085
17		2 100044 kfcx@jdcp.sohuvip.net	010-88301744

18		2 100044 jxgyjcw@163.com	010-88301626
19		2 100044 jdbcdazz@126.com	010-88301520
20		55 102100 syczjzx@sohu.com	010-69141178

Internet Webs

2011 50

21

1		www.cam.com.cn	
2		www.hwi.com.cn	
3		www.china-weldnet.com	
4		www.chinaweld.com.cn	
5		www.chinasrif.com	
6		www.foundryworld.com	
7		www.casttech.amadata.net.cn	
8		www.foundrynations.com	
9		www.zrime.com.cn	
10		www.rimp.com.cn	
11		www.csec-mp.com	
12		www.china-piating.com	
13		www.mat-pro.com	
14		www.mat-info.com	
15		www.piatingcentre.com	
16		www.cntribo.org	
17		www.tc57.com	
18		www.bmgc.org	
19	—	www.xpnh.com	
20		www.china-conversion.com	

21		www.riamb.ac.cn	
22		www.yeyanet.com.cn	
23		www.robotschia.com	
24		www.brimet.ac.cn	
25		www.chts.org.cn	
26		www.sxgcxh.org	
27		www.jsrc.chinajournal.net.cn	
28		www.jscl.chinajournal.net.cn	
29		www.DYJE.chinajournal.net.cn	
30		www.sxgcxb.com	
31		www.cmfi.cn/home.asp	
32		www.pcmi.com.cn	
33		www.e-cuc.com	
34		www.kepu.gov.cn	
35		www.cppc.org.cn	
36		www.jcw.com.cn	
37		www.jb.ac.cn	
38		www.standardcn.com	
39		www.cccap.org.cn	
40		www.syc.org.cn	
41		www.sycxfw.cn	
42		www.mtd.com.cn	
43		www.mtdep.com	
44		www.riamt.com	
45		www.cam-zj.cam.cn	
46		www.mach365.com	
47		www.camtc.com.cn	
48		www.mie.gov.cn	
49		www.china-machine.com.cn	
50		www.mia-ias.org	

Other Service Organizations

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Exchanges and Visits

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Sung-Hoon Ahn

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Sung-Hoon Ahn

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IIW

Wolfgang Tillmann

Young Sik Kim

AMDP 2011 Yun Hae Kim

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BT Mr. Mikael Lvarsson RAYMOND Mr. Alan Bartels Mr. Shuan Zhao

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Academicians

1993

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(Prof. Xu Xingchu)

Professor Xu Xingchu, the academician of the Chinese Academy of Science, the expert in the field of the design of precise machine tools and process technology, the honorary president of CAM.

He graduated from the Mechanical Engineering Department of Dalian Technology University, and his major is machine tools. In his career in Beijing Research Institute of Machine Tools of the Ministry of Machinery Industry, he successively held the posts of technician, engineer, senior-engineer, professor, director, deputy-chief engineer and the president. And now he is invited as to be the deputy-director of the Committee of Science and Technology, which is belonged to the China Machinery Industry Federation, and has been conferred the academician of the Chinese Academy of Science in 1993. He was selected as to be the commissar of the Seventh, the Eighth and the Ninth National People’s Political Consultative Conference.

For a long time, he has been engaged in the research work on R&D of precise metrology and the precise measure instrument, the precise processing and the design and manufacturing for super-precise machine tools, among them a lathe, a mill and a roundness instrument achieved a rotating precision better than 0.02um, and finished surface roughness better than 2.5nm.

He had been in chief in the R&D work in developing the first one-meter longitudinal photoelectric interferometric comparator; the one-meter grating ruling on the basis of laser wavelength and the magnetic grid machine tool in China.

He also developed the technology of the super-precise machine tool and the super-precise processing, and some new products such as the super-precise lathes and milling machines, in the meanwhile, had invented one set of key manufacturing technology with low cost. He was ever awarded the National First-Level Prize of Science and Technology Progress, and was the national eminent young and middle-aged expert.

(Prof. Lin Shangyang)

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(IIW)

Professor Lin Shangyang: the academician of the Chinese Academy of Engineering (CAE), a prominent welding expert, Supervisor for Doctors, Deputy-Chief Engineer of China Academy of Machinery Science & Technology, Chairman of the Technical Committee of Harbin Welding Institute (HWI). After graduation from Harbin Institute of Technology (HIT), Prof. Lin has been working with HWI as a head of research groups, research department, Deputy Chief Engineer of HWI. In 1995, he was granted the academician of the Chinese Academy of Engineering.

In 2005, he was awarded the Permanent Accomplishment Prize for Chinese Welding, which was given by the Welding Society of the Chinese Mechanical Engineering Society; in July 2009, he was awarded Paton Permanent Accomplishment Prize, which was given by IIW; in December 2010, he was granted a nominee of “The national best ten workers of Science and Technology in China”.

He has contributed his knowledge, energy and talent for more than 40 years in the field of R&D and achieved more than 20 key research projects. He has won 11 national and ministerial scientific and technology awards and presented more than 40 research papers and published 2 books. In the 60’s, he developed 4 kinds of low alloy SAW and ESW wires for 400-600MPa yield strength steels. These wires have been widely used in practice up to now. In the 70’s, Prof. Lin invented a locally drying under water CO_2 semiautomatic welding technique, raising the technology of under water welding in China to the world advanced level. In the 80’s, he invented tandem wires narrow gap SAW process, solving the contradiction between quality and efficiency and welding automation in the welding of heavy section structures. In the 90’s, he developed automatic welding machines and arc welding robot stations for industries. In 2001, he accomplished a research project on high power Nd:YAG laser welding and cutting technology and approved by the Ministry of Science and Technology.

Prof. Lin also gives his great attention to the professional and social activities. He used to be the Secretary General of Chinese Welding Society, Chairman of the Chinese Committee for International Institute of Welding. He is a part-time professor of HIT and the doctoral supervisor. He is also a doctoral supervisor of the China Academy of Machinery Science and Technology (CAM). Prof. Lin is the Chairman of Science & Technology Association of Harbin City and a standing member of Science & Technology Association of Heilongjiang Province. He is also a special invited member of the Science & Technology Committee of the China Machinery Industry Federation. He is a member of Political Consultative Committee of Heilongjiang Province and Harbin City.

(Prof. Chen Yunbo)

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Prof. Chen Yunbo, the Academician of China Engineering Academy, Senior staff engineer, Supervisor of Doctors, vice-president of the eighth Chinese Mechanical Engineering Society and the director of advisory committee concurrently, Deputy-Chief Engineer of CAM, Director of Materials Engineering Research Institute, Director of State Key Laboratory of Advanced Forming Technology and Equipment (SKL) Academic Committee, Director of China Heat Treatment Productivity Promotion Center, Vice Chairman of China Energy Society. He was awarded as the National Mid-Youth Experts with outstanding contributions in 1988. And he has enjoyed the Governmental Special Allowance since 1991. In 1999, he granted to be the Academician of China Engineering Academy. In 2009, he was appointed to be “the chief expert in the group of technical supports the economic transformation and upgrading of the equipment manufacturing industry in Hangzhou, Zhejiang province”.

Professor Chen has been for a long time engaged in the work of R&D on materials, material processing, surface engineering, mould and die technology. He has made outstanding contributions in resolving key problems related to manufacturing technology and equipment, and has made a few academic and technical innovations on the key engineering equipment and technologies related, the common interests of the new materials and technologies, surface engineering technologies and resisting force index systems of material environment failure. He has been in charge of the R&D work on the key technological projects of new materials and the advanced manufacturing technologies, which were listed in the national “10th Five-Year” and “11th Five-Year” plans and a few of the national key scientific and technological projects announced by the government such as “863” and “973” plans. He has been awarded more than 10 national or provincial outstanding prizes due to his great contributions on the scientific and technological progress and innovation, and he has been granted 4 invent patents. He has issued 3 sets of technical publications and more than 100 academic papers. Also he had been the supervisor for more than 10 masters or doctors who have already graduated.

Personnel

Experts

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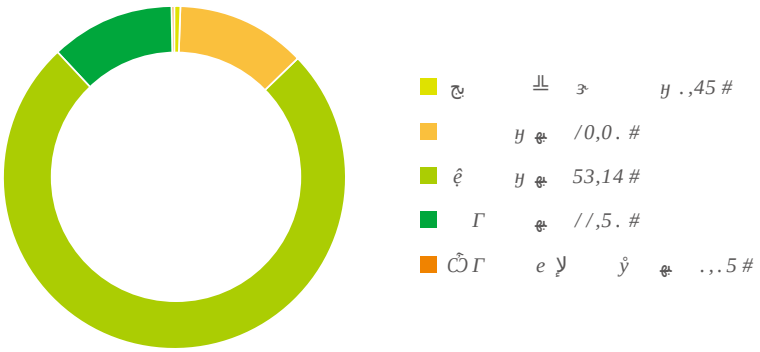

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Post - Graduates Education

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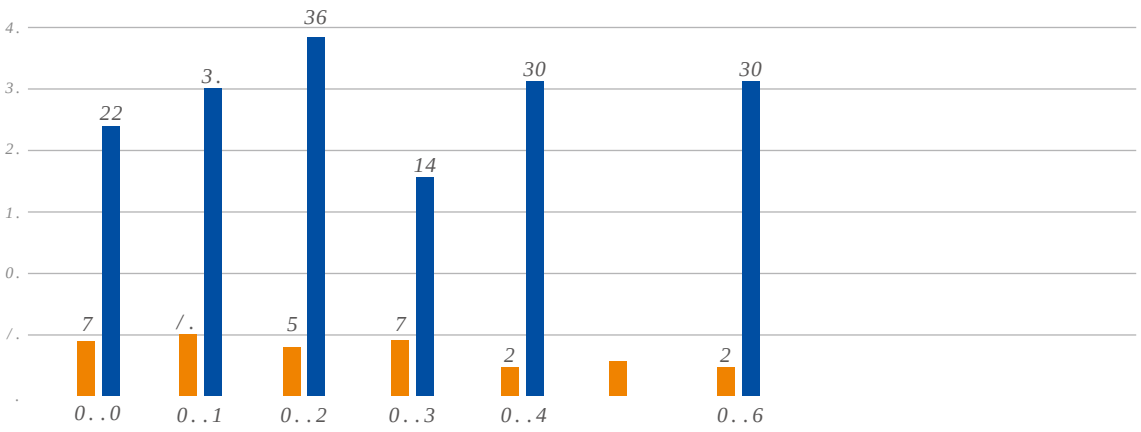

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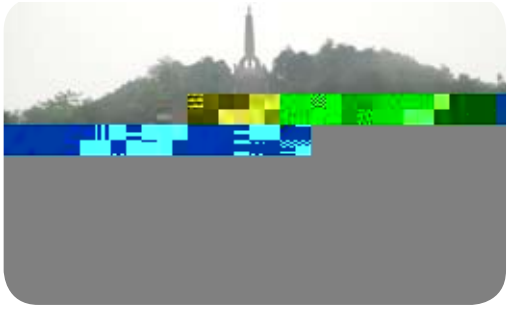

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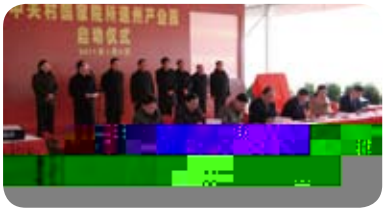

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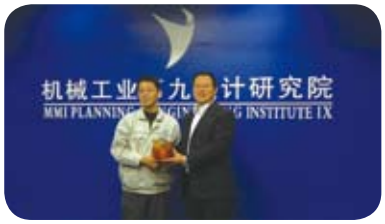

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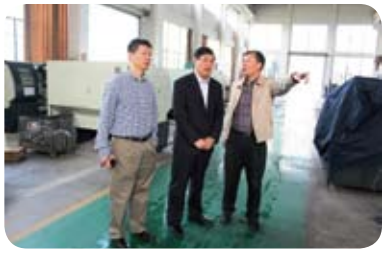

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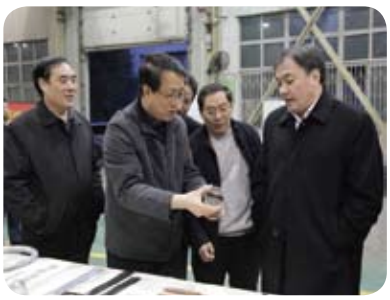

Regulations and Rules Amended and Formulated in 2011

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