

## History

1997.07 Solge was founded in Keimyung Techno Park  
2000.01 "Integrated Lubrication Management and Oil Analysis Technology Training" held regularly  
2000.01 Consulting of Samsung Corning Co., Ltd "Optimal Water Management" & "Hydraulic System Diagnosis Anal  
2000.08 Consulting of YNCC "Integrated Lubrication Management and Lubrication System Diagnosis Analysis  
2001.03 Consulting of Hyundai Motor "Integrated Lubrication Management"  
2001.08 Registered as a venture company from Small&Medium Business Corporation and named as Top venture  
2001.08 Performed technical development project by Small&Medium Business Corporation  
2001.11 Development of Watector(Water detector) and patent registration  
2002.08 Introduction of ICML test  
2006.04 Consulting of Samsung Precision Chemicals "A Rotary Machine Lubrication Control"  
2006.12 Development of specialized software for analysis of used oil and project for Industry-University cooperation  
2007.02 Solge brand registration  
2009.02 Factory registration  
2010.09 Certified as an affiliated research institute(Solge Lubrication Technology Research Institute)  
2010.12 Completed The new product development project by Korea East-West Power Co, Ltd. TBN&EHC  
Oil online Monitoring and Automatic Purification system  
2011.06 Acoustic Emission business division established  
2011.09 Signed contract to produce Oil Circulation system for Thrust Bearings of Navy waterjet propeller  
2011.11 Awarded the best prize by the Hyundai and Kia Motors with the cost saving reduction field  
(Oil refining management system)  
2014.10 Moved headquarter and Expansion of business  
2015.03 Certified as Innovative Small and Medium Enterprises(INNO-BIZ)  
2016.09 Certified for purchase [Turbine Oil / Control fluid Sludge Varnish Removal united Filter]  
2016.09 Completed the project of [Localization of Varnish Potential risk tester]

## CEO Message

### **Warm greeting to all our valued customers!**

Since 1999, our company has been supplying the latest lubrication management technology to the domestic device industry and the manufacturer and has been reducing the equipment failure and maintenance cost of the customer. We are in alliance with Korea Facility Diagnostic Certification Institute, US ICML (International Council for Machinery Lubrication), WearCheck (Global Oil Analysis program management) and NORIA (Lubrication Education and Consulting). So, we provide the latest lubrication technology as public education/training as service in our training center more than 8 times every year. In case of customer's request, we also visit customer directly to provide In-House seminar. We will always be with customer under the slogan "A Good company(employee happiness, customer happiness, happiness of shareholder) that good people make(employee, customer, shareholder)" and the corporate philosophy of "Walk the path of lubrication for customer's happiness and success" We look forward to seeing you soon in our education center. Thank you.

## About SOLGE

- SOLGE Co., Ltd. has been doing its best for customer's success through continuous education, consulting and innovation by adopting preceding preservation for the first time in Korea. Furthermore, we are establishing a win-win relationship by providing the optimal solution to achieve the 'No Failure Long Life' for the client success in domestic device industrial facilities.
- SOLGE Co., Ltd. 3,500 people completed the SOLGE's education program from 1999 to February, 2018 and they contribute to the development to the industry by preceding preservation. At this moment, SOLGE is leading find the equipment maintenance specialist and giving them training.
- SOLGE Co., Ltd. is not only educating in industries such as power plants, chemicals, oil refining, steel, paper, automobiles, shipbuilding but also helping the maintenance of facility by diagnosing oil condition and facilities utilizing oil analysis. Through education, we will provide you with various on-site Trouble shooting experiences from the best lubrication specialist who have combined field experience and theory.
- In addition, knowledge of lubricant management training is not only useful for field application but also teach you what is best for their exams so, it boasts the high test pass rate of those who take the qualification examination.

## Contact

Name	Department	Tel	Fax	E-mail
Kim Ji Hyun	Training	053-588-3301	053-588-3151	Kjh15@solge.com

## Training Curriculum

### 1.Introduction

This course is for facility managers and operators who maintain facilities directly on site. We teach that reliability and equipment productivity and quality. In addition, we educate about prevention of equipment failure, improvement of reliability, improvement of productivity and economy by understanding of what is correct lubrication and helping them in the work.

### 2. Tribology I

I Training Period : four days

I Training Time : 24h

I Training Place : SOLGE Training Center

## 2-1. Training syllabus

Subject	Hours of training
Maintenace strategies	2.5
Lubrication theory/fundamentals	4.0
Lubricant selection	2.5
Principles of lubricant application	4.0
Lubricant storage and management	2.5
Lubricant contamination measurement and control	2.5
Oil sampling	2.5
Lubricant health monitoring, diagnostics, prognostics, generic maintenance recommendation	2.5
Wear debris monitoring and analysis	1.0
<b>Total hours</b>	<b>24.0</b>

## 2-2. Time schedule

Time		Day 1	Day 2	Day 3	Day 4
Class 1	09:00 ~ 09:50		Maintenance strategies	Lubricant application	Lubricant selection
Class 2	10:00 ~ 10:50		Aspects of condition based maintenance	Grease application	Machine-specific lubricant requirement
Class 3	11:00 ~ 11:50		Design of optimal lubricaton	Automatic application	Wear debris monitoring and analysis
12:00 ~ 13:00		registration (12:50 ~ )	lunch		test
Class 4	13:00~ 13:50	Fundamentals of tribology, Lubrication regimes	Lubricant storage	Sampling method	
Class 5	14:00 ~ 14:50	Functions of lubricant, Lubricant composition	Storage of lubricant application devices	Sampling process management	
Class 6	15:00 ~ 15:50	Lubricant properies, classification	Lubricant contamination	Lubricant failure mechanisms	
Class 7	16:00~ 16:50	Solid lubrication, gas lubrication	Lubricant contamination control	Fluid properties test methods	
Class 8	17:00~ 17:50	Case study	Fundamentals of lubricant filters	Practice lubricant analysis	



### 3. Tribology II

This course is for facility managers and operators who maintain facilities directly on site. We teach that the various lubrication tasks they perform routinely have an impact on equipment failure, reliability and equipment productivity and quality. In addition, we educate about prevention of equipment failure, improvement of reliability, improvement of productivity and economy by understanding of what is correct lubrication and helping them in the work.

I Training Period : four days

I Training Time : 24h

I Training Place : SOLGE Training Center

#### 3-1. Tribology II Training Syllabus

subject	Hours of training
Maintenace strategies	1
Lubrication theory/fundamentals	1
Contamination measurement and control	6
Oil sampling	7
Lubricant health monitoring, diagnostics, prognostics, generic maintenance recommendation	5
Wear debris monitoring and analysis	4
<b>Total hours</b>	<b>24</b>



### 3-2. Time schedule

Time		Day 1	Day2	Day 3	Day4
Class 1	09:00 ~ 09:50		Soot contamination	Practice sampling	Ferrogram, Filtergram preparation
Class 2	10:00 ~ 10:50		Fuel contamination	Practice sampling	Ferrogram analysis
Class 3	11:00 ~ 11:50		Air contamination	Lubricant failure mechanism, oxidation	Atomic emission element analysis
12:00 ~ 13:00		registraion (12:50~)	lunch		Test
Class 4	13:00~ 13:50	Maintenance strategies	Objective of lubricant sampling	Lubricant failure mechanism, thermal degradation	
Class 5	14:00 ~ 14:50	Lubrication theory	Equipment sepcific sampling	Additive depletion	
Class 6	15:00 ~ 15:50	Particle contamination	Sampling methods	Testing for wrong lubricant	
Class 7	16:00~ 16:50	Moisture contamination	Managing inteference	Practice lubircnat test	
Class 8	17:00~ 17:50	Glycol coolant contamination	Sampling process management	Common wear mechanism	

### Instructor

Level	Name	Department	Qualification
I , II	RYOO JAE KON	SOLGE	Lubricant Analyst I , II
I , II	KIM TAE HEON	SOLGE	ICML MLAIII, Lubricant Analyst I , II
I , II	KIM HYEON DOO	SOLGE	Lubricant Analyst I , II
I , II	KIM JONG HUI	SOLGE	CML MLA II , MLT II , Lubricant Analyst I , II
I	AN WON SUL	Keimyung University	Doctor of engineering, Professional Engineer Chemical Industry

### Center

- Location: 11. Secheonbukro 8gil, Dasaep, Dalseonggun, Daegu, Korea(42922)
- Occupancy: Thirty persons
- Training Equipment: Possession in large number of oil analysis equipment(Particle Counter, Moisture Analyzer, Wear Analyzer, Viscosity Analyzer, Element Analyzer, FT-IR etc)

## 1. Head office building and Inside the training center



## 2. Practice of oil analysis

