



# SATORI

Study Tour 2011

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**S**tudy tour Acquainting Thor with ORiental Innovation, or SATORI, is the name of the study tour that the electrical engineering student association Thor will be making in 2011. Satori finds its origin in the Japanese culture. Quite apt, since Japan is the destination for this study tour whose overriding goal is to become acquainted with innovating companies in the Far East and the culture in Japan.

Sustainability and innovation, the theme of this tour, is one of the themes that we at the Eindhoven University of Technology (TU/e) like to express. 'Where innovation starts' is our slogan and it is not for nothing that we are successful with our TU/e Innovation Lab. This Lab was founded to translate the scientific results accumulated at the university into products and processes that can be used for and by society.

It is very important for our students to come into contact with real practice in their field at an early stage. Moreover, the university considers it essential for its students to gain international experience. The Thor study tour 2011 fits this picture. Students will come into contact with Japanese companies in the electrical engineering sector and they will become acquainted with the culture of a country that has always been so closely associated with engineering and innovation. Not only will they learn what their field is all about in real terms but the tour will also contribute to their personal development. The outcome is a fruitful collaboration with international industry and the graduates that take their place in society will be engineers with a broad orientation.

Thor has previously organized successful study tours to Scandinavia, South Africa and China, among other destinations. I am convinced that those participating in SATORI, with visits to Tokyo, Osaka and Kyoto, will benefit from an instructive and inspiring time. I very warmly give my support to this study tour and wish Thor and its members every success in the organization of the tour.



A blue ink handwritten signature of Hans van Duijn. The signature is stylized, starting with a large 'H' and 'D' that are connected, followed by a horizontal line and a vertical stroke.

Hans van Duijn  
Rector  
Eindhoven University of Technology

Japan has always fascinated me. When I think of Japan I have the typical picture of oriental culture in front of me. I think of ancient temples, anime movies and eating noodles with chopsticks. At the same time images of stunning nature come to my mind. Japan is after all the home of the Cherry Blossom, Mount Fuji and the famous Japanese gardens. Of course, being the electrical engineering student that I am, I most often think of Japan as a pioneering industrial nation; a world leader in engineering. The striking thing is that it is all there, in a unique mix.

With the above in mind, deciding on the destination of our study tour was not very difficult. The main objective of a study tour is to give students an eye-witness impression of the engineering business and education in a foreign country. Such an experience can be very valuable, as it will help students develop the proficiencies they need in order to be competent engineers in today's industry. In my opinion, there is no better place in the world than Japan to get that experience.

Our journey will carry the slogan and title "Study tour Acquainting Thor with ORiental Innovation", under the acronym "SATORI." The definition of the acronym in Japanese Buddhist terms is 'enlightenment', which occurs when one achieves a deeper understanding of his own existence. We found this to be an inspiring name for our project. The main focus during the tour will be on sustainability and innovation; two topics that currently play a very large role throughout the engineering branch and are also extensively promoted at Eindhoven University of Technology.

At Thor we take great pride in organizing study tours. Destinations of successful tours in recent years have included China, Scandinavia, Italy and South Africa. We now have a very capable new study tour committee in place and we are busy organizing Thor's next big journey. In this information booklet we will express our plans. It will give you an impression of the prospective program of the trip and its organizing committee, some general information about our destination and options for sponsoring.

It is our sincere hope that you will be motivated to support us in some way, in order to help make this a successful project. If you would like to receive any further information, please do not hesitate to contact us.



A large, stylized handwritten signature in black ink, which appears to read "Rick van Kemenade". The signature is written in a cursive, flowing style with long, sweeping lines.

Rick van Kemenade  
Chairman

**F**ounded in 1957, Thor is the student association for electrical engineering students at Eindhoven University of Technology. In that position, Thor represents the students and organizes many activities to enrich the department's study program. By taking part students are able to get a much broader view of the field of work known as electrical engineering. Examples of activities include symposia, corporate excursions, guest lectures and most remarkably, study tours. In this information booklet we will present the plans for our next study tour, entitled Satori, which will take 28 students to Japan.

The theme of our tour will be "Sustainability and innovation". The world is currently dealing with many issues such as global temperature changes and rising energy prices. Sustainability is therefore a much debated topic. In the past, global warming was not yet an issue and technology for a green world did not exist. Innovation is now needed to make our world green again.



Japan is one of the most technologically advanced countries in the world and is using its strengths to better the world. To be able to cooperate with our Japanese colleagues, we need to understand their distinct and unique business culture. By visiting companies that create green solutions, we hope to learn about their corporate ways and their ideas to better the world. In addition to that, we will catch a glimpse of what we are trying to preserve: culture and nature. We will make time for some of the more rudimentary culture traits, during a number of cultural excursions.

We want to experience the atmosphere of Japanese business, and discover the difference between their work characteristics and ours. The Japanese culture in general is unique, making Japan the ideal location for our Study Tour.

During the study tour, which will be held over a period of three weeks, we will stay in Tokyo, Kyoto and Osaka. We shall depart on the 25th of February 2011 and will have 28 participating students, as well as two supervisors from the department. The tour will consist of a mixture of technical and cultural excursions at a ratio of around 60% to 40%.

During the technical excursions we plan to visit High-tech international companies in the region. Of course we are especially interested in companies that are originally Japanese, however, we are also planning to visit non-Japanese companies that have an office in Japan. In addition to corporate excursions, we will visit at least one Japanese university.

A study tour to Japan wouldn't be complete without giving participants an impression of the unique Japanese culture, history, lifestyle and nature. During our journey, there will also be time to experience the Japanese way of life and to visit impressive cities such as Yokohama, Kamakura, Nara and Hiroshima.

Our study tour will start in Tokyo, where we will spend ten days to visit the city and its surroundings. During our stay, we plan to visit high-tech companies in this region. During cultural excursions we will explore Tokyo and get an impression of both traditional and modern Japanese culture. Our exploration will lead us to places like the Sensoji Temple, the Zoji Temple, Ueno Park and Shibuya station. Furthermore, we will visit Kamakura, a coastal town near Tokyo, to admire its numeral shrines and temples.

When we have finished discovering Tokyo, we will continue our journey to Kyoto. Here, we will stay for four days to visit cultural highlights such as the Nijo Castle and Myoshin-ji. Furthermore, we will spend one day visiting companies located nearby.

From Kyoto we will travel to Osaka. We will stay there for six days, during which we will have several technical as well as cultural excursions, among which will be a visit to the famous Osaka Castle. Also included in the program is a one-day trip to Hiroshima.







**T**okyo is the high-tech capital of the world. You can find everything there: gadgets, next-generation cell phones, a high-speed public transportation system, advanced electronics, and even digital toilets. Tokyo is home to some major technological companies including Sony, Nikon and Panasonic, and is a marketplace for every Japanese product, from Nintendo to Epson.

Tokyo, the east ('To') capital ('kyo') and most important city of Japan, is the seat of the Government and home of the Emperor. With its 12 million inhabitants and 35 million residents in the Greater Tokyo Area, it is the world's most populous metropolitan area. In Tokyo ancient orient tradition excellently combines with modern comfort and progressive technology. It is a true metropolis; one of the biggest urban centers with a unique face. It is also Japan's scientific and cultural heart and home to the oldest and best universities in the country.





Before the 1960s most manufacturing industry factories were located in Tokyo. Nowadays, the big factories have moved out of the city's boundaries to make room for intensive research and development programs. During the twentieth century, Tokyo suffered from two major catastrophes that destroyed the city. One was the Great Kantō Earthquake in 1923 and the other was the bombing of Tokyo during World War II. The 1964 Olympic Games gave a great impulse to reconstruct the city.



In Tokyo, we plan on visiting some well-known high-tech companies. We will also visit famous cultural highlights such as the Sensoji Temple, the Zoji Temple, Ueno Park and Shibuya station. Northwest of Tokyo is Tsukuba Science City, the largest research and education center of Japan and therefore another interesting place for us to visit. Kamakura is a small city near Tokyo and a very popular tourist destination. Sometimes called the Kyoto of Eastern Japan, Kamakura offers numerous cultural excursion opportunities, like temples, shrines and other historical monuments.



Compared to high-tech, modern Tokyo, Kyoto may seem only a small city, but this is undoubtedly made up for by its vast cultural heritage. Kyoto was established under the name Heian kyo in 794. It remained to be the Imperial resident capital for over a thousand years and is still the center of Japanese culture. Many Shinto shrines and Buddhist temples were founded in and around Kyoto under the patronage of the Emperors and Shoguns (warrior elite leaders), and have remained in excellent condition. Each building accurately reflects the culture of the historical period in which it was built. Kyoto is often referred to as a giant museum of Japanese history.



Over the centuries, Kyoto was destroyed by many wars and fires, but due to its historic value, the city was dropped from the list of target cities for the atomic bomb and spared from air raids during World War II. Numerous temples, shrines and other historically priceless structures survive in the city today.



The city allows for a way to discover another side of Japanese culture. This may not yet be apparent from an arrival at JR Kyoto station, but a walk through the grid-like city center will reveal many beautiful, more traditional Japanese buildings. A trip to one of the many world heritage sites in Kyoto will teach any visitor why Kyoto is deemed Japan's most beautiful city.



Osaka is Japan's third largest and second most important city, with 2.5 million inhabitants. It has been the main economic power of the Kansai region for many centuries.

Osaka was formerly known as Naniwa. Before the Nara Period the capital of Japan was moved with the reign of each new emperor, and Naniwa was once Japan's capital city; the first one ever known.



Our program in Osaka will include a one-day excursion to Hiroshima. On this trip we will visit the Atomic Bomb Dome and Miyajima. The Atomic Bomb Dome is a skeletal domed building in Hiroshima City which still stands to commemorate the dropping of the atomic bomb. Miyajima is a Shinto shrine on the island of Itsukushima in the city of Hatsukaichi in Hiroshima Prefecture.



Toyotomi Hideyoshi built the famous Osaka in the 16th century. The city might have become Japan's capital were it not for Tokugawa Ieyasu, who terminated the Toyotomi lineage after Hideyoshi's death and moved his government to Edo (Tokyo).

Osaka is especially famous for its cuisine, which explains the nickname "nation's kitchen". For the best regional dishes, like sushi, Osaka is the place to be! The most important touristic attractions are the Osaka castle and the Osaka aquarium.



Day 1 - Saturday 26 February	Arrival in Tokyo
Day 2 - Sunday 27 February	Cultural excursion 1 Cultural excursion 2
Day 3 - Monday 28 February	Technical excursion 1 Technical excursion 2
Day 4 - Tuesday 1 March	Cultural excursion 3 Cultural excursion 4
Day 5 - Wednesday 2 March	Technical excursion 3 Technical excursion 4
Day 6 - Thursday 3 March	Technical excursion 5
Day 7 - Friday 4 March	Cultural excursion 5 Cultural excursion 6
Day 8 - Saturday 5 March	Technical excursion 6 Technical excursion 7
Day 9 - Sunday 6 March	Cultural excursion 7
Day 10 - Monday 7 March	Technical excursion 8 Technical excursion 9
Day 11 - Tuesday 8 March	Travel to Kyoto Cultural excursion 8
Day 12 - Wednesday 9 March	Cultural excursion 9 Cultural excursion 10
Day 13 - Thursday 10 March	Technical excursion 10 Technical excursion 11
Day 14 - Friday 11 March	Free time
Day 15 - Saturday 12 March	Travel to Osaka Cultural excursion 11
Day 16 - Sunday 13 March	Cultural excursion 12 Cultural excursion 13
Day 17 - Monday 14 March	Technical excursion 12 Technical excursion 13
Day 18 - Tuesday 15 March	Cultural excursion 14 Cultural excursion 15
Day 19 - Wednesday 16 March	Technical excursion 14 Technical excursion 15
Day 20 - Thursday 17 March	Cultural excursion 16
Day 21 - Friday 18 March	Departure to the Netherlands







Mike Wilmer, Giel Op 't Veld, Celine Vincent, Lieneke Kusters, John van Weerdenburg  
Gerald Drenthen, Rick van Kemenade, Johan de Ruijter, Perry van Schaijk

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