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Contents

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Hideo Hosono wins Von Hippel Award from Materials Research Society

It was announced that Professor Hideo Hosono (Director of the Materials Research Center for Elementary Strategy) of the Laboratory for Materials and Structures, Institute of Innovative Research will receive the Von Hippel Award, the highest honor given by the Materials Research Society (MRS) of the United States. The award ceremony and a commemorative lecture on "Element Strategy in Materials Research" will be held at the MRS Fall Meeting & Exhibit in Boston, USA on Wednesday, November 28, 2018.

MRS is an organization of materials researchers founded in 1973 with the aim of promoting interdisciplinary research on materials. More than half of the members, which are from over 90 countries and regions, are researchers that hail from outside the United States and belong to diverse fields including chemistry, biology, physics, and engineering.

The Von Hippel Award, in honor of Professor Arthur R. Von Hippel (1898-2003), is presented to one researcher each year (regardless of membership) in recognition of the person's outstanding contribution to interdisciplinary research on materials. Hosono is the 42nd recipient, and the first Japanese person to receive this award.

The citation of this award is "for the discovery of high Tc iron-based superconductors, creation of transparent oxide semiconductors and inorganic electrides." His discovery of a high-Tc iron-pnictide superconductor, which has grown into a new continent of high-Tc superconductors comparable to high Tc cuprates, and development of oxide semiconductors such as IGZO used in OLED televisions, and inorganic electrides that have opened the way to catalysts for ammonia synthesis under mild conditions were highly evaluated as pioneering achievements.

Comments from Professor Hideo Hosono

Professor Hideo Hosono

Professor Von Hippel made historic, pioneering achievements in many interdisciplinary themes, for which he was already famous when I was a student. I have been engaging in research with an awareness of running different fields for a number of years, so I am very pleased to receive this award. Materials science is a field where Japan is strong, so I was surprised to learn that I am the first Japanese winner. I would like to thank the many collaborators and the universities that have supported me, sponsors including the Japan Science and Technology Agency (JST) and the Japan Society for the Promotion of Science (JSPS), as well as others who nominated me.

Over the last ten years or so, many have pointed out that presence of Japanese materials research has been rapidly lost in the world and that changes are needed. We need to promote unique research that goes beyond traditional disciplines such as by the adopted MEXT Outstanding School Program curriculum proposed by Tokyo Tech. Personally, I want to overlook wider fields and engage in research that leads to the creation of new substances and materials and their applications based on unique concepts related to untouched high-potential themes.

NASA's Mary Voytek appointed executive director of ELSI

Dr. Mary A. Voytek, director of the Astrobiology Program at the National Aeronautics and Space Administration (NASA) headquarters, has joined the Earth-Life Science Institute (ELSI) as its executive director.

ELSI, a research institute of Tokyo Tech, was launched in December 2012 as part of the World Premier International Research Center Initiative (WPI) by the Japanese government. Its mission is to establish an internationally recognized, world-class interdisciplinary research institute studying the origins of life in the context of the origin of the Earth and other planets, and to lead in implementing and promoting administrative innovation and organizational excellence.

Voytek has been a frequent visitor to ELSI since its early days and one of its global science coordinators since 2015. As described by ELSI Director Kei Hirose, she is well respected in the science community and will help lead ELSI as a manager, a scientist, a program innovator, and someone who can help raise the international profile of the organization by implementing its goals and vision. "Being able to recruit Mary Voytek for this important role is itself a sign that ELSI is developing its world presence and competitiveness," Hirose said, describing her hire as a "strategic addition" for the second half of ELSI's ten-year WPI term.

Dr. Mary A. Voytek

Voytek said her great interest and excitement about coming to ELSI flow from the nature of the institute and "the opportunity it provides to work in a vibrant research community that is supportive of truly interdisciplinary research."

"I am excited and feel lucky to be part of this unique effort supported by the commitment of the Japanese government to ELSI and the WPI program as a way to evolve science in Japan," she said.

WPI, inaugurated in 2007 by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), aims "to build within Japan 'globally visible' research centers that promote very high research standards and outstanding research environments, sufficiently attractive to prompt frontline researchers from around the world to want to work in them." Part of that effort explicitly calls for recruitment of scientists and administrators from around the world, and ELSI has been a leader in this outreach. The appointment of Voytek to help administer and direct ELSI is in keeping with that mandate.

The WPI mission also includes a call to experiment with, and potentially adopt, new approaches to managing the research institutes and their host institutions. Voytek brings to that task deep experience in running an important NASA program for ten years. Tokyo Tech President Kazuya Masu has described the hiring of Voytek as an important step in efforts to bring change to the Institute by providing and expanding an "ELSI model" for managing and innovating. In addition to her role as executive director, Voytek will act as special advisor to Masu.

Voytek begins her new position thanks to the Intergovernmental Personnel Act (IPA) program of the United States, agreed between NASA and Columbia University, an ELSI satellite campus where Voytek is an adjunct professor. The agreement between ELSI and Columbia is formally a temporary assignment contract that runs initially for two years and can be extended.

Voytek joined NASA from the United States Geological Survey in Reston, Virginia, where she headed the Microbiology and Molecular Ecology Laboratory. She has degrees in biochemistry, biology, and ocean sciences.

ELSI's new executive director said she intends to learn Japanese and is enamored with many Japanese ways. "I love it here," she said. "My background is Italian and so I tend to effuse. I hope to share my passion for science and collaboration with the staff here and hope to lead with cultural sensitivity and emotional intelligence."

Kazuhiro Nakadai receives Innovation Generation Award from Japanese ministry

Professor Kazuhiro Nakadai of the Department of Systems Control and Engineering, School of Engineering has received the Innovation Generation Award from the Ministry of Internal Affairs and Communications in the auditory technology category for his work on "listening drones that help find victims needing rescue during disasters." Nakadai received the award at the Innovation Program Award ceremony held on October 24, 2018.

The government's innovation program, now in its fifth year, supports people who take on ambitious R&D challenges in information and communications technology that potentially result in disruptive value creation on a global scale. This year, 10 achievements from 10 different fields were recognized from 10, 440 entries.

Comments from Professor Nakadai

The idea of listening drones evolved from my research into auditory robots, which I first initiated immediately after the 2011 Great East Japan Earthquake in an attempt to provide something that can be utilized disaster sites. If we could provide drones with an auditory function, then we could detect voices calling for help or ringtones of mobile phones, and that would enable us to offer a means of search and rescue in areas that are buried in rubble and are inaccessible by emergency vehicles. After ongoing research and development, we were able to create an actual physical device that was demoed in an outdoor environment, and this award is the result of that work. I would like to express my sincere gratitude to the collaborators who participated in this research —

Nakadai at award ceremony

Professor Hiroshi Okuno from Waseda University, Associate Professor Makoto Kumon from Kumamoto University, Assistant Professor Kotaro Hoshiba from Kanagawa University, Project Manager Satoshi Tadokoro and the team involved in the ImPACT Tough Robotic Challenge, and all the members of the Nakadai Lab.

Tokyo Tech student second in Stanford's health hackathon

Hajime Fujita, a 3rd-year Life Science and Technology student, and his team BEETLE achieved second place at Stanford's Health Hackathon health++ 2018, held on November 3 and 4.

health++, an annual contest held at Stanford University to tackle healthcare challenges, brings together engineers, entrepreneurs, designers, and healthcare professionals. This year, 19 teams aimed to tackle the issue of affordability in healthcare.

Team BEETLE: (from left) George Padeigis from McMaster University, Ahmed A. Metwally from Stanford University, Hajime Fujita from Tokyo Tech, Anthony Huang from the University of Toronto, and Marcelo H. Pillonetto from Military Institute of Engineering

Team BEETLE's project

Team BEETLE was born after a participant from Brazil raised the issue of drug-resistant bacteria at the beginning of the hackathon, and interested members volunteered to find a solution.

Multidrug-resistant bacteria have become a huge problem in recent years. Particularly those pathogenic to humans take a long time to identify, and appropriate measures cannot be taken promptly. Healthcare professionals often administer incorrect antibiotics to treat patients.

Fujita's team developed a device to extract and amplify multidrug-resistant DNA and constructed a system that measures the type of resistant bacteria quickly and easily.

BEETLE planning their pitch

Pitching to the audience during finals

Fujita's central role

Team BEETLE consists of five students and researchers from Stanford University, Brazil's Military Institute of Engineering, the University of Toronto, McMaster University, and Tokyo Tech specializing in biology, computer science, and electrical engineering. Fujita, who participated as both a bioengineer and hardware engineer, was in charge of system device development and business model creation.

Fujita during his pitch presentation

Comments from Hajime Fujita

Biodesign — combining design with solutions to unmet health care needs — is currently a trending concept at Stanford University, the home of design thinking. We will continue to test our product and hope to bring it to market soon.

When I participated in the Entrepreneurship Camp at Korea Advanced Institute of Science and Technology (KAIST) last July, we also tackled product design in multinational teams — much like at the Stanford hackathon. At KAIST, however, due to a lack of leadership and varying levels of knowledge among our team members, our project fizzled out.

I tried to learn from that failure. This time, we clarified the role of each team member and carried out thorough prototyping based on the needs of potential end users. The result was a synergy that formed between the diverse members of the team. The environment in the United States, and particularly Stanford University, can provide this kind of experience, and I sincerely hope that Tokyo Tech students continue to participate in this competition in the future.

Fujita, while carrying out research in the field of biology, has also been studying sociology under Associate Professor Ryosuke Nishida. Fujita feels that the interdisciplinary approach he has adopted contributed to his success at the hackathon.

Chor Kleines wins silver at National Choral Competition

Chor Kleines, Tokyo Tech's choral group and official student club, has won the silver medal at the 71st National Choral Competition, held on November 24 and 25, 2018. The group represented the Tokyo metropolitan area in the university youth category, which competed on the first day of the competition in Sapporo, Hokkaido.

Chor Kleines at the contest

The National Choral Competition has been held annually since 1948, when the Japan Choral Association was established. It is organized into three categories: middle school, high school, and university, company, and community. The last category is further divided into chamber chorus, male or female chorus, mixed chorus, and university youth, the last of which consists of eight or more members under 28 years old.

Comment from Chor Kleines President
● Ryunosuke Hara, 3rd year, Information and Communications Engineering

We were able to maintain our momentum from last year, and again won the silver medal at the National Choral Competition. This award is the result of the daily efforts of all the chorus members. Even during exam periods and amidst our studies, we dedicated ourselves to music, refused to compromise on our practice sessions, and rehearsed as a group until just before the competition. Unfortunately, we fell just short of the gold medal. Still, I feel our group still has a lot of room for growth, and we will continue practicing. We will be performing at the Sumida Triphony Hall on December 27, 2018. Please come and listen to us sing.

Chor Kleines

Chor Kleines, an official Tokyo Tech student club whose name means "small chorus" in German, only had 30 members when it was established in 1963. Today, this inter-university group consists of approximately 140 members from Tokyo Tech, Ferris University, Seisen University, Japan Women's University, and other higher education institutions. Chor Kleines first joined a choral competition in 1978. It has since participated in 36 National Choral Competitions, winning the gold medal 20 times.

Tokyo Tech's traP in top 10 at Japan's Google Play Indie Games Festival

Digital Creator Club traP achieved a top 10 finish at Japan's 2018 Google Play Indie Games Festival with their smartphone action game Ninja Flicker. The event, held in Tokyo on April 28, 2018, showcased the 20 best indie games available on Google Play Japan at the end of 2017 as selected by judges.

Ohmori (back left) and Gotoh (back, 2nd from left) with top 10 teams

As a top 20 finalist, Ninja Flicker had its own booth at the Google event, where judges and other attendees could speak with creators and test out their games. These booth visitors voted for their favorites, putting the Tokyo Tech platform game in the top 10. Judges scored games based on four criteria: fun, innovation, design, and technical and production quality. Ninja Flicker was praised for its innovative operability, as well its graphics and sounds, which traP members created from scratch.

The top three games were selected based on final presentations given by the creators. Unfortunately, Ninja Flicker did not make the final cut, but their top 10 finish was an outstanding achievement from an all-student team.
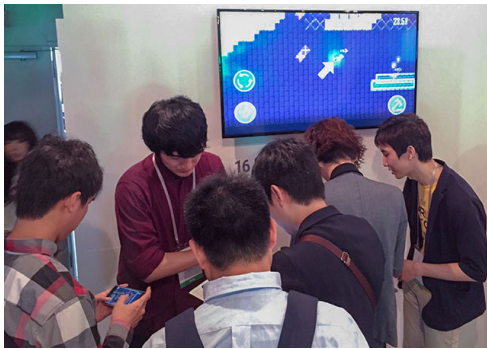

NinjaFlicker icon

Ninja Flicker

Ninja Flicker is an action game where the player manipulates a ninja through levels by scrolling or "flicking" the background. Throwing stars, swords, and other items can be used to attack enemies and maneuver through levels, while special ninja skills can be activated by tracing special signs displayed on the screen.

NinjaFlicker team leader Tsukasa Gotoh (burgundy shirt)
and head programmer Yoshiki Ohmori (far right)
introducing game at booth
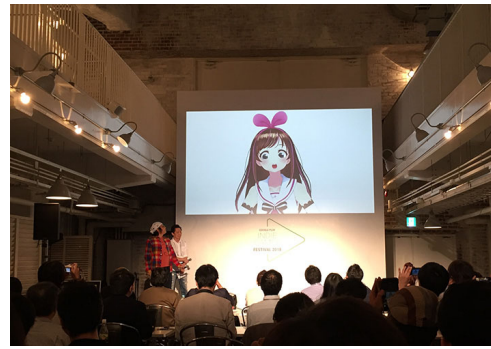
Kizuna AI, a virtual Youtuber and one of the contest

Icons of some of top 20 games near Indie Games Festival entrance

Comments from team leader Tsukasa Gotoh

I am extremely pleased with our achievement at this Google contest. As team leader during the creation phase, I was responsible for deciding the general direction of the game. We then worked as a team and openly shared ideas on how to make improvements. Ninja Flicker is the result of 1.5 years of hard work.

traP has won various awards in competitive programming and in the information security field, but this is the first time we were commended for a game. I am proud of this achievement. I think it adds another dimension to our club.
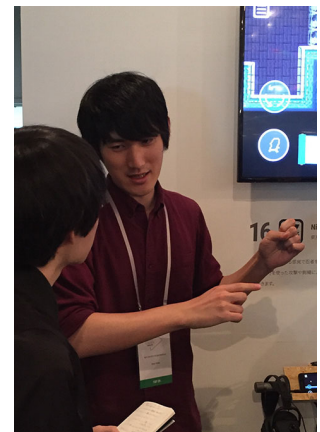
Gotoh interviewed by
Google employee

What is traP?

traP, which recently became an official Tokyo Tech Student Club, began its activities in April 2015. The club focuses on various activities including game programming, digital and audio content creation, 2D illustrations and 3D modeling, pixel graphics, and cybersecurity capture the flag competitions. traP shares its knowledge through various public engagement activities, including programming classes for middle and high school students. The club currently has over 250 members.

(Tokyo Tech news published : Tokyo Tech traP・December 11, 2018)

Cycle-ballers 2nd in national championships, win rookie event

Tokyo Tech finished second overall in the All-Japan Student Cycle-ball Championships and first in the Cycle-ball Rookie Competition, held on October 20 and 21 at Ritsumeikan University.

Newcomers' group photo

All-Japan Student Cycle-ball Championships

Cycle-ball is traditionally a 2-on-2 sport, but in this intercollegiate meet, each university can register four players for their team. Two players are selected for each match after analysis of the opponents' strengths and weaknesses. This year, the All-Japan Student Cycle-ball Championships included six teams, meaning a team strategy for five matches was required.

The Tokyo Tech team won their first match, and used this momentum to quickly string together three more victories. In the finals, they faced the experienced Osaka University of Economics, and lost 6-1. It was a tough defeat, but a record of four wins and one loss guaranteed Tokyo Tech second place overall. This was one place better than the previous year. This year's participants were:

● Kakeru Masuda, 3rd year, Systems and Control Engineering
● Satoru Ikeda, 3rd year, Architecture and Building Engineering
● Takashi Banba, 3rd year, Architecture and Building Engineering

Comments from cycle-baller Satoru Ikeda

The next all-Japan intercollegiate contest will be at Tokyo Tech on November 24 and 25. I invite everyone to come and witness the unique sport of cycle-ball live and to cheer us on!

Ikeda expects to be busy with lab work and thesis writing in his 4th year, but hopes to continue practicing cycle-ball in his free time.

Rookie Competition

The national Cycle-ball Rookie Competition is only for players who are in their first or second year of competition. The winning team gets a ticket to enter the All-Japan Student Cycle-ball Championships, which takes place on the following day. This year's winning team is:
● Keita Ichihashi, 2nd year, Architecture and Building Engineering
● Daiki Amagazaki, 2nd year, Architecture and Building Engineering

Comments from Keita Ichihashi, winner of the Rookie Competition

In the Rookie Competition, my teammate was not my usual pair, so we had to adjust our movements quite a bit. It was tough at times, but our preparation paid off and I am delighted that we won. I hope we can continue to train hard before the next competition in November.

Ichihashi, a student in the Department of Architecture and Building Engineering, has a busy study schedule but he hopes to upkeep his skills with individual training whenever he can.

What is cycle-ball?

Cycle-ball is a soccer-like sport played indoors by two teams of two players each. Five-aside matches outdoors are also possible, but less common. Using a specially adjusted bicycle with no gears or brakes, players dribble, pass, and shoot the ball using the wheels of their bicycles. As most of the action takes place while standing on the pedals, the handlebars face upwards, and the bike also allows players to pedal backwards.

The special cloth ball used during games is 17 to 18 cm in diameter and weighs 500 to 600 g. The court measures 11 m by 14 m, and teams of two play two seven-minute halves. Feet should never be touching the ground, and hands can be used only at the defensive end. Most players in Japan get to know the sport while at university.

Tokyo Tech Cycling Club

The Tokyo Tech Cycling Club is an official student club that includes members from not only the Institute, but also other universities such as Ochanomizu University and Tokyo University of Foreign Studies. The club consists of a touring group, a racing team, and a cycle-ball team, totaling over 100 members. The cycle-ball team, which includes 22 Tokyo Tech students, alumni, and members of other universities, trains at Ookayama Campus twice a week.

Tokyo Tech (red and yellow) en route to victory over Osaka University, last year's winner

Osaka University of Economics vs. Tokyo Tech in final

(Tokyo Tech news published : Tokyo Tech Cycling Club・November 26, 2018)

Tokyo Tech's space shower commended at 26th Satellite Design Contest

Tokyo Tech's creation for the 26th Satellite Design Contest held in Kurume City, Fukuoka Prefecture on October 27, has been selected for the Honorable Mention Award. A nine-member team of students led by Sho Tamura, a first-year master's student in Mechanical Engineering, designed RAKU using the knowledge they acquired on the Space Systems Design course at the Institute.

RAKU is not a satellite, but rather a showering device intended for use on the International Space Station (ISS). A space shower was available on the ISS in the past, but was removed due to difficulties in removing water droplets from the shower room. RAKU, which loosely translates to "comfort," aims to provide astronauts with a new form of space hygiene by simplifying the water droplet removal process after use.

RAKU and its creators

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Team Tokyo Tech members

● Sho Tamura, 1st-year master's student, Mechanical Engineering
● Kai Aso, 2nd-year master's student, Mechanical Engineering
● Saho Kato, 1st-year master's student, Mechanical Engineering
● Ryo Sato, 1st-year master's student, Mechanical Engineering
● Nobuyuki Takahashi, 1st-year master's student, Mechanical Engineering
● Yuichiro Tsukamoto, 1st-year master's student, Mechanical Engineering
● Tsuyoshi Nakashima, 4th year, Mechano-Aerospace Engineering
● Yuki Nakatsuka, 4th year, Mechano-Aerospace Engineering
● Teruaki Hayashi, 4th year, Mechano-Aerospace Engineering
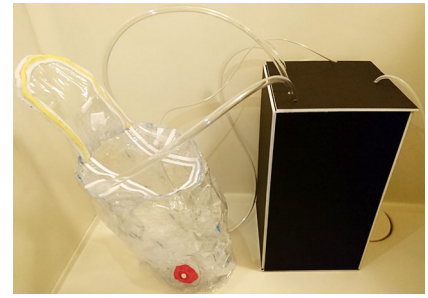
RAKU

Comments from Sho Tamura

I was very surprised that our team was selected for the Honorable Mention Award. I think we were rewarded for the uniqueness of our idea, which really had very little to do with satellites. The fact that the contest was not in any way related to my research allowed me to think very far outside the box. Our biggest challenge was how to remove water droplets from the shower environment with minimal effort. The final solution came from outside the Space Systems Design course. I just suddenly realized that the dustproof clothing I now and again used during research was a cheap, disposable option. I often hear that "the best ideas come when you least expect them," and this time that was certainly true.

Satellite Design Contest

The Satellite Design Contest is a contest-style education program for high school, vocational school, technical college, university, and graduate students hosted jointly by the Japan Society of Mechanical Engineers, the Japan Society for Aeronautical and Space Sciences, the Institute of Electronics, Information and Communication Engineers, and other organizations.

The competition is divided into three categories: Design, Idea, and Junior. Works are scored by a panel of judges at an initial screening based on ideas, ingenuity, fundamental technical knowledge, and future prospects. Approved projects progress to the final public review event in October, where students present their works and winners are selected.

This year's Idea category included 28 initial applicant teams. Four of these, including Tokyo Tech, progressed to the finals.

(from left) Kato, Takahashi, Tamura
presenting to judges

Tamura receiving certificate

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Space Systems Design course

Tokyo Tech's Space Systems Design course is a master's-level course led by Professor Saburo Matunaga and colleagues at the School of Engineering. It is divided into two main areas of study: satellite system and rocket system design.

In the former, lectures cover topics such as small satellite systems, mission ideas, and spacecraft dynamics and control. Students formulate their own presentations, proposals, and discussions, with additional knowledge and reference materials provided as needed. One of the course goals is to participate in a satellite design or a spacecraft control contest where students present the works they have created.

Rocket system design provides students the chance to examine massive system design through an overview of rocket development and launching operations, engine combustion tests, and rocket launching procedures through video footage. Students learn the fundamentals and concepts of a series of rocket designing processes through system design methods, the basics for rocket sizing, guidance control, structure, electric power, propulsion, and other systems.

(Tokyo Tech news published : Public Relations Section・December 7, 2018)

Tokyo Tech strong at 33rd track meet for national, public universities

The Tokyo Tech Track & Field Club put in an outstanding performance at the 33rd Track and Field Competition for National and Public Universities, held at Kumagaya Sport and Culture Park in Saitama Prefecture from September 18 to 20.

Fourth-year Chemical Engineering student Takumi Shiota demonstrated that he is currently the runner to beat, winning both the men's 5,000m and 10,000m races.

Shiota (right) running the 5,000m

The Institute's men also finished second in the 4x100 and 4x400m relays. Both results were Tokyo Tech's best achievements to date. Taito Tsumaki, a 2nd-year master's student in Life Science and Technology, ran in both of these races. Tsumaki also finished third in the men's 200m individual sprint.

Tsumaki (1604) passing baton to Yuya Nagashima in 4×100m relay

Comments from former captain Takehito Yokoyama

Strong results in this competition were our main goal this season. Many members were plagued with injuries, and although we did not achieve our goal of overall third place, our fifth-place finish was better than expected. Takumi Shiota, Taito Tsumaki, and other 4th-year and master's students demonstrated great leadership despite being busy with their research activities. I hope the club's younger members will dedicate themselves to another strong season next year.

Yokoyama currently studies organic materials in the Department of Materials Science and Engineering. He hopes to continue competing despite the increased time he has to dedicate to his research activities.

Tokyo Tech Track & Field Club

The Tokyo Tech Track & Field Club holds daily practices to train for intercollegiate competitions, Hakone Ekiden qualifiers, and simply to achieve new personal bests and perform well as a unified team. Through discussions among each other and under the guidance of coaches and trainers, the team aims to create an environment where both individual and group performances are optimized.

(Tokyo Tech news published：Public Relations Section・November 8, 2018)

Shogi Club third in East Japan student championships

Tokyo Tech's Shogi Club finished third in the group category of the East Japan Student Shogi Championships, held in Chiba City from August 20 to 22.

Tokyo Tech Shogi Club members

Organized by the Kanto Area Universities Shogi Federation, the competition brought together ten shogi teams from eastern Japan – five university teams and five regional teams. Tokyo Tech's players defeated one of the favorites, Nihon University, and conceded only to Tohoku University and the Kanto II regional team, finishing with a 7-2 record. This earned them top spot among the participating universities and a third place finish overall.

Club captain Ohno receiving certificate

Comments from vice-captain Shohei Takada

This team competition involved five players, with three individual victories required to win each group match. Personally, I lost my bearings on the final day and was defeated, but thankfully, my team members outperformed their opponents and we finished that day with two wins and one loss, guaranteeing third place overall. I am extremely grateful to my teammates – Hiroki Ohno, Saiki Ariga, Chiaki Iida, Jun Oohigashi, Ryosuke Shiino, and Akira Tanaka for their efforts, and look forward to improving my performance in the next tournament.

Takada, a 3rd-year Systems and Control Engineering student, dedicates his study time to learning about fluid dynamics, image processing, and the mechanisms of robots.

Comments from captain Hiroki Ohno

My strategy as captain was to beat one of the top opponents and alleviate the pressure on my teammates. I lost. However, my teammates performed very well in the matches against the Kanto I regional team and Hokkai Gakuen University, and I applaud them for that. This tournament was a prime example of teammates helping each other out. From seven matches, we won five with a 3-2 score line, and I could really feel the strength of the team as a whole. I look forward to carrying this team spirit forward at the fall competition.

Hiroki Ohno, a 2nd-year student in the Department of Life Science and Technology. Last quarter, he spent two days a week conducting experiments in the lab, expanding his knowledge in fields such as thermodynamics, organic chemistry, and molecular biology.

Tokyo Tech Shogi Club

Each spring and fall, members of the Tokyo Tech Shogi Club participate in individual and group competitions around Japan. The club includes approximately 40 members ranging from bachelor to doctoral-level students. Some of these members are experienced players with nationwide competition experience, while others are complete beginners. The club meets twice a week to practice.

(Tokyo Tech news published : Tokyo Tech Shogi Club・November 2, 2018)

Rowers on podium at 41st East Japan Rookie Competition

The newest members of the Tokyo Tech Rowing Club put in a strong performance at the 41st East Japan Rookie Competition, held from October 13 to 14, 2018 at the Toda Boat Course in Saitama Prefecture. The Institute finished second in the men's eight and third in the men's coxed four categories.

The East Japan Rookie Competition is for students who are in their first or second year of competitive rowing.

Men's eight

In this category, eight rowers propel the boat with sweep oars while one cox steers. Each rower holds one oar with both hands. This year's runner-up rookie team consisted of:

● Hiroto Horimoto, 1st year, 4th Academic Group
● Yuuya Fujiwara, 1st year, 2nd Academic Group
● Shogo Masuda, 1st year, 1st Academic Group
● Shunichi Nomura, 1st year, 3rd Academic Group
● Kazumasa Shirakata, 1st year, 4th Academic Group
● Yuto Uchida, 1st year, 3rd Academic Group
● Yasunori Nose, 1st year, 4th Academic Group
● Kaito Sanuki, 1st year, 5th Academic Group
● Kentaro Shimizu, 1st year, 2nd Academic Group

(from left) Shirakata, Sanuki, Fujiwara, Masuda, Uchida, Shimizu, Nose, Nomura, Horimoto

Comments from crew leader Kentaro Shimizu

We were able to execute in the race what we had practiced during training sessions. Many improvements are needed before we can aim for victory, but that just motivates us to train harder.

Shimizu, a 1st-year student with a keen interest in the core courses of the 2nd Academic Group, is still considering his options in terms of specialization.

Men's coxed four

In this category, four rowers propel the boat with sweep oars, one oar per rower, while one cox steers the boat. This year's 3rd place rookie team consisted of:

● Tetsuro Hara, 2nd year, Civil and Environmental Engineering
● Takaaki Ogiso, 2nd year, Transdisciplinary Science and Engineering
● Kazuya Koyanagi, 2nd year, Life Science and Technology
● Riku Uchida, 2nd year, Chemical Science and Engineering
● Takumi Abe, 2nd year, Chemical Science and Engineering

(from left) Ogiso, Uchida, Hara, Abe, Koyanagi

Comments from crew leader Kazuya Koyanagi

While we are slightly disappointed with the third place finish, this was a good experience that will motivate us for the next race. We will be competing with the same crew at the All Japan Rookie Championships in November, and hope to put in a better performance.

Koyanagi, a 2nd-year student in the Department of Life Science and Technology, is fascinated by the study of life and living things. He hopes to continue to develop himself, both through his studies and club activities at Tokyo Tech.

(Tokyo Tech news published : Tokyo Tech Rowing Club・December 11, 2018)

2018 Tokyo Tech Award for Student Leadership

Student Division, Student Service Department

Recipients of the Tokyo Tech Award for Student Leadership for the 2018 academic year were acknowledged on October 24. Awarded annually to 2nd-, 3rd-, and 4th-year bachelor-level students with extraordinary intellect, humanity, creativity, and energy, the award aims to encourage highly motivated students to continue with their studies and work towards becoming global leaders.

2018 commemorative photo

At the ceremony, President Kazuya Masu awarded the students with their certificates and prizes. After the formalities, the recipients discussed their achievements and plans openly with the president, executive vice presidents, and deans.

2018 Tokyo Tech Award for Student Leadership recipients and award-winning activities

Arashi Hayami	4th year, Polymer Chemistry	• Activities as leader of ScienceTechno • Three award-winning events for participants at 2016 Tokyo Tech Festival • Winner of Science Link 2017
Kosuke Tani	4th year, Mechano-Aerospace Engineering	• Mechanical and team leader at 2017 NHK student robot contest — national champions and global top 4 finish • Project and team leader at 2018 NHK student robot contest — national top 8 finish
Koya Ohashi	3rd year, Information and Communications Engineering	• Activities as leader of Tokyo Tech's Digital Creators Club traP • Operator of winning team at METI-sponsored 13th Crisis Management Contest
Haruka Ikegami	3rd year, Industrial Engineering and Economics	• Activities as TEDxTitech leader • Organization of TEDxTitech2018 • Internship at a HR consulting company in Singapore

Eriko Onuki	3rd year, Architecture and Building Engineering	• International activities in Global Scientists and Engineers Course, training activities in Europe • Project leader for Tokyo Tech Orienteering event organized by Student Association for Global Exchange

2018 Tokyo Tech Award for Student Leadership recipients

(Tokyo Tech news published : November 12, 2018)

Centennial Hall reopens with new Tokyo Tech Museum exhibits

Museum and Archives

After more than a year of renovation work in Tokyo Tech's Centennial Hall on Ookayama Campus, the Tokyo Tech Museum took advantage of the iconic building's reopening on August 1 by hosting several new exhibits at the T-POT — the learning commons on the 1st floor — and the facility's basement level.

Faded questions, yet still so relevant

The Entrance Examination Questions from 1924 Exhibit was launched on August 10 to coincide with this year's Open Campus. Despite being aimed mainly at high school students enjoying their summer break, the oldest existing specimens of Tokyo Tech exam questions drew in large crowds of all ages.

Much like today, many hopefuls tried to pass the Institute's entrance exam 94 years ago. The test began with a two-hour English language section and a three-hour section on mathematics. Those who passed these were given a day to rest before they faced the two-hour physics and chemistry components. Current 1st-year students have recently taken on the challenge of solving some of the mathematics and chemistry problems of the past, producing interesting solutions.

The 1924 entrance examinations were the first to be held away from Kuramae Campus, which was completely destroyed by fires sparked by the Great Kanto Earthquake one year earlier. Many books and documents, including all archived entrance exams from the Kuramae era, were also lost. Therefore, the entrance examinations of 1924 not only provide a rare peek into the challenges faced by prospective students of the past; they also serve as documents that mark a pivotal point in the Institute's history.

Popular exhibit of entrance exam
questions from 1924

Honoring Nobel Prize winners

Nobel Prize exhibit

Another exhibit, located in Exhibition Room A on the basement floor, paid tribute to Honorary Professor Yoshinori Ohsumi, the 2016 Nobel laureate for Physiology or Medicine. On display were the Nobel Medal and a replica of the Nobel diploma, a section introducing Ohsumi's discoveries, and newspaper clippings from his student days and the day of his nomination.

This exhibit also included the Nobel Medal received by Dr. Hideki Shirakawa, the 2000 Nobel laureate in Chemistry. Shirakawa, whose achievements will be on show again at the Tokyo Tech Festival in October, is a Tokyo Tech alumni and professor emeritus at the University of Tsukuba.

Building blocks of Centennial Hall

The wooden counter in the T-POT continues to display an interesting exhibit — a LEGO model of Centennial Hall, created by the Institute's LEGO Club. The club actively holds exhibitions and workshops for local schoolchildren to boost their creativity and powers of observation. In addition to Centennial Hall, the LEGO Club has created models of the Ookayama Library, the Main Building, and other architectural achievements on campus under the leadership of current club captain Hidetaka Kamimura, a 3rd-year student in Mechanical Engineering. "The reproduction of the cylindrical and glass portions were both

Lego model of Centennial Hall

challenging and surprisingly costly due to the transparent parts required," the club members commented.

More details regarding Tokyo Tech's entrance examination questions from 1924 and the transition from Kuramae Campus to Ookayama Campus can be viewed in Tokyo Tech Museum and Archives flyer #12 (Japanese), first published in September 2018.

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