

2022 年度研究ステーション研究成果報告書

1. 研究ステーション名 イノベティブ理工系英語教育研究ステーション
研究代表者名（所属部局・職・氏名） 共通教育部・教授 Shi Jie（史傑）

2. 研究組織(今年度関わった全ての構成員を記してください。)

<学内構成員>

電気通信大学	大学院情報理工学研究科	共通教育部	准教授	上原寿和子
電気通信大学	大学院情報理工学研究科	共通教育部	准教授	大石由紀子
電気通信大学	大学院情報理工学研究科	共通教育部	教授	鈴木勝
電気通信大学	大学院情報理工学研究科	情報・ネットワーク工学専攻	教授	村松正和
電気通信大学	大学院情報理工学研究科	情報・ネットワーク工学専攻	教授	植野真臣
電気通信大学	大学院情報理工学研究科	情報・ネットワーク工学専攻	教授	芳原容英
電気通信大学	大学院情報理工学研究科	情報・ネットワーク工学専攻	教授	肖鳳超
電気通信大学	大学院情報理工学研究科	機械知能システム学専攻	准教授	饗庭恵理子
電気通信大学	大学院情報理工学研究科	機械知能システム学専攻	教授	HG-Matuttis
電気通信大学	大学院情報理工学研究科	基盤理工学専攻	准教授	清水亮介
電気通信大学	大学院情報理工学研究科	基盤理工学専攻	准教授	Vorun Vohra
電気通信大学	大学院情報理工学研究科	情報学専攻	准教授	金路

<学外構成員>

国際基督教大学 John Maher
東京医科歯科大学 Patrick Foss
青山学院大学 Charlie Robertson
成蹊大学 藤田玲子
多摩大学 YU Yan
東洋大学 Uma Maheswari Rajagopalan
筑波大学 Sonia Sharmin
東海大学 橋本信一、西川恵、John Cross
明治大学 Robert Moreau
慈恵医科大学 中村直子
創価大学 Forrest Nelson
Temple University Japan (TUJ) Jonathon Derr
東京大学 Tito Akintele
University of Sussex, UK Nobuyuki Oishi
Fudan University, China CAI Jigang
Beijing Foreign Studies University SUN Youzhong
Beijing Foreign Studies University LI Liwen

Huazhong University of Science and Technology DU Jianying

Hubei University of Technology GAO Xiao

Sichuan International Studies University WANG Yin

3. 2022 年度の研究の特筆すべき成果

(研究の主な成果、得られた成果の国内外における位置づけとインパクトなどの点から記述すること)

The main achievement of the research station this year revolved around the following: organized two research seminars inviting international famous researchers and educators to UEC, supporting curriculum merging of general education English courses and Undergraduate Technical English, research on machine translation, and survey with department teachers. Among the above aspects, the survey on the teachers' feedback on the English education at UEC was carried out last November, the result of which has been given back to the department teachers and will be reported to the whole university at an FD event next year. The responses from 61 professors were extremely valuable due to the large population and will be published internationally at academic conferences.

The research on Cognitive Studies including machine translation and ChatGPT is considered to be advanced among English professionals. In July, Shi will be invited to give a talk at an international conference in Singapore. Cognitive Translation is a very important area of research for both human translation and machine translation. The latter imitates the process of the former and shows both advantages and disadvantages as compared with the former. The research conducted in this area by Shi tries to decode the process of the AI-Assisted Translation (AIAT) and Computer-Assisted Translation (CAT). The former holds novelty as it is a combination of human translation process and the teaching of it to machines, or AI, at a deep level. The research on AIAT is hugely welcome to the human translation researchers and practitioners in and outside of Japan. Being the first researcher of this area from the language education and translation fields, Shi's research is considered to be a pioneer one and is expected to be developed further. ChatGPT poses a serious challenge to English education at large due to its intelligence, usefulness, and availability. To embrace or reject this new technology divides English educators globally. Hence, the novelty of this topic and its gravity attracts researchers of English greatly.

The research on ESP and global English education trends continues to be the main areas of IGTEE Research Station. Serving the education of the English language at UEC and beyond remains to be the main purpose of the research station. The involvement of full-time and part-time faculty of UEC and the researchers of other universities is of great importance to educational programs and research activities. The research achievements listed below demonstrate the academic activities conducted by other members of the research station. The research conducted by other members of the research station will be reported duly.

4. 2022 年度の研究成果の公表実績
(主催した研究会・シンポジウム、研究成果の発信状況等)

① **The 25th Research Seminar of the Research Station for Innovative & Global Tertiary**

English Education (IGTEE), UEC Tokyo

Date: Nov. 29, 2022, Tuesday 16:30 - 17:30

Venue: East 1-705, Meeting Room

Presentation:

Title: Major Trends and Critical Issues in Higher Education During Challenging Times? A Bilingual Speaking TESOL Professional's Perspectives

Presenter: Yilin Sun, Seattle Colleges, Seattle, USA.

Abstract:

This talk will focus on critical issues that educational leaders and practitioners need to keep in mind when fostering shared accountability in leadership and instructional excellence amidst all the challenges posed by the pandemic and rapid technological changes to society. Based on her background as a bilingual TESOL educator and her cross-cultural teaching and research experience in China, Canada, and the United States, the speaker will address major trends in Higher Education and the implications for higher education leaders and teachers. She will also discuss strategies to cultivate resilient and innovative leadership and teaching excellence during challenging times.

② **The 26th Research Seminar of the Research Station for Innovative & Global Tertiary**

English Education (IGTEE), UEC Tokyo

Date: Mar. 17, 2023, Friday, 15:00 – 16:30

Venue: East 1-705, Meeting Room

Presentation 1:

Title: Initiatives of Technical English Education for Students of Science and Engineering at Tokai University

Presenter: Shin'ichi Hashimoto (Tokai University)

Abstract:

In 2007, the Graduate School of Engineering at Tokai University implemented English Presentation for Engineers (EPfE), a once-a-week one-semester course, as an initiative to help first-year graduate students make international presentations in English. Then in 2010, another one-semester course, Technical English for Engineers (TEfE), was also implemented to help students improve their command of English in their respective fields. Both ESP courses are currently still running and provide science engineering students with opportunities to improve their communicative effectiveness. This presentation will cover course objectives, approaches and

anecdotal evidence of outcomes. In addition, the presenter will briefly introduce some of the courses for the various departments of the College of Engineering as an overview of its undergraduate initiatives and its direction forward.

Presentation 2:

Title: Examining the Effects of Guided Instruction of Machine Translation: An Analysis of Use, Attitudes, and Perceptions of Machine Translation among Japanese STEM Graduate Students

Presenter: Sunao Fukunaga, Kyushu Institute of Technology

Abstract:

This presentation explores the Japanese STEM graduate students' use, attitudes, and perceptions of neural machine translation. It displays the results of a survey conducted at the graduate school of a Japanese university of technology and discusses how instructors can incorporate ethical and practical use of machine translation as guided instruction in graduate-level English language or writing courses.

Specially Invited Talk:

Title: The Development of English Education at Institute of Superieur de Mecanique de Paris: Now and Future

Presenter: Florence Dujarric, ISAE-Supméca (France)

Abstract:

This talk first introduces the historical development and the current structure of ISAE-Supméca along with the educational and research organizations of the institute. The talk focuses on the aspect of English education detailing the general and specific curricula, sample course syllabi, the internal and external (TOEIC) assessment of students' English, and graduation requirements. The future goals and concerns related to ESP curricular development and faculty development are also introduced.

5. 外部資金の獲得状況

(種別・種目・相手機関(企業)・研究題目・代表者名・直接経費額・間接経費額)

科研費(基盤研究(B)): 工学系の大学院生のためのライティングについての研究
代表者: 名古屋工業大学 石川優香教授

6. 今後の研究発展

(外部への発信、外部資金獲得計画を含む)

IGTEE Research Station support the new English Minor system of UEC and provide academic backup to increase theoretical validity. IGTEE Research Station will continue to build strong cooperation among members and collaboration with other research organizations and communities in

Japan as well as overseas. We will carry on with the research and educational activities on innovative English education especially for students of science and engineering. The core group of the English teachers will first work on the teaching methodology for remote teaching focusing on the curricular goals realization, collaborative education, student achievement evaluation, and teaching materials development for tele-lecturing. The research station is planning on organizing a symposium or a panel with the JACET ESP Kanto for which Shi Jie is serving as the advisor. Research presentations on members' individual research areas will be supported continuously. Depending on the pandemic situation around the world, more participation in international presentations is expected.

7. 発表論文等（各項目ごとに記載してください。）

「雑誌論文」：著者名・論文標題・雑誌名・査読の有無・巻・発行年(西暦)及びページ
(研究ステーション長の業績のみ)

「学会発表」：発表者(代表)名・発表標題・学会等名・発表年月日・発表場所

Shi, J., Needs Analysis in EAP Contexts: Universities in the Panel of the Role of Needs Analysis in English for Specific Purposes. TESOL Convention. 2023. Portland, USA (virtual attendance).

Shi, J., Syllabus Design for Teaching Research English Writing and Presentation in Students' Disciplinary Domains of Science and Engineering at the Postgraduate Level in Japan. 57th RELC International Conference: Rethinking English Language Teaching and Learning for a COVID-19 Endemic World: Global, Glocal and Local Perspectives. 2023. Singapore (virtual attendance).

Shi, J., Co-developing and Co-teaching a Graduate School ESAP Course with Japanese Engineering Disciplinary Specialists. TESOL International Association. 2022. Pittsburgh, Pennsylvania, USA (virtual attendance).

Shi, J., Machine Translation-Powered Multilingual Service for Government Websites in Japan: A Sociolinguistic Analysis. 56th RELC International Conference: "Equitable and Inclusive Language Education: New Paradigms, Pathway, and Possibilities.". 2022. Singapore, (virtual attendance).

「招待講演発表」：発表者(代表)名・発表標題・学会等名・発表年月日・発表場所

Shi, J., Disciplinary Specialists' Perspectives on the Problems and Needs of the English Abilities of Japanese Students of Science and Engineering. The Fifth Conference of JAAL in JACET. 2022. Osaka, Japan.

Shi, J., Development of ESAP Curriculum for Japanese Graduate Students of Science and Engineering. The Fifth Conference of JAAL in JACET. 2022. Osaka, Japan.

Shi, J., ESP as Tertiary Academic Education in EFL Context. ESP Teaching and Talent Cultivation in Featured Tertiary Institutions in the Context of a Strong Transportation State and the 4th High-End Forum on the Development of Disciplinary Features of Beijing Jiaotong

University. 2022. Beijing, China.

「図書」：著者名・出版社名・書名・発行年(西暦)及び総ページ数(共著の場合、最初と最後のページを記載)

Shi, J. (2022). Chinese: A Historical Language of Cultural Influence (Chapter 8). *Language Communities in Japan*. Oxford University Press (OUP). pp 91-98.

Shi, J. (2023). Pedagogical Design to Enhance Research Writing Competencies in Japanese Graduate Students of Science and Engineering in Collaboration with Disciplinary Faculty. *ESP 工学英語研究の展開*. 金星堂. pp. 216-235.

「受賞」：授与団体・受賞者(代表者)名・受賞標題・受賞年月日

「特許出願」：出願した特許の名称・発明者・権利者・種類・番号・出願年月日・国内外別

「その他」：ホームページ等