

Division of Electrical Engineering and Computer Science	Research field	Networks and Parallel Computation	Lab. ID EC23
Laboratory web site	http://carrera.ec.t.kanazawa-u.ac.jp/		
Research subjects			
Our research interest is in theoretical aspects of network design, network applications, and parallel computation, such as <ul style="list-style-type: none">* online algorithms for data management on networks,* design and routing for wireless ad hoc networks,* network design from a game theoretic viewpoint.			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
Each student has his/her own research project and is supposed to solve it by himself/herself. It is not the case that a group of students join a big project. Students have two choices to plan/choose their research projects: One is to completely follow projects I suggest. In this case, they are likely to be traditional, formal, and somewhat hard to solve. The other choice is to completely design by students. In this case, you can make them more preferable to you in any aspect. Instead, you may not have very deep supervision if I am not so familiar with/interested in your project.			
Daily life in the laboratory, etc.			
Students must follow rules in the laboratory. You are also expected to get along with other students. We have computer systems consisting of mainly Linux, together with a Windows server. A 24 core server is also available for somewhat large scale computing for your reseach.			
Message or comments by the laboratory faculty staffs			
We solve problems from the theoretical viewpoints, such as algorithmic theory, discrete mathematics, computational complexity, optimization theory. Those who are familiar with these subjects are welcome. Programming skill is NOT important. Please do not expect you will do programming research. In addition, I welcome students who have deep interest in research (not only in a degree) and independent, consistent, honest, and modest personality.			
Recent Master theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
2020.3	On Online Steiner Tree Algorithms on Halin Graphs		
2019.3	A Study on the Lower Bound on Power Consumption of Broadcasting for Wireless Networks in Square Regions		
2018.3	A Study on Data Management Problem for Minimizing Congestion on Parallel Links and Rings		
2017.3	A Study on Randomized File Allocation Algorithms on Ring Networks with Experimental Evaluation		
2015.3	Minimization of Energy Consumption for Wireless Ad Hoc Networks by Multi-Hop Localized Algorithms		
2014.3	Optimization of Ladder Networks for Selfish Routing and Its Formulation by Mathematical Programming		
2014.3	A study on Minimum Energy Bidirectional Communication on Wireless Ad Hoc Networks		
2013.3	Minimum Energy Broadcast on 2D Rectangular Grid Wireless Networks		
2011.3	A study on Online Steiner Tree Problem on Outerplanar Graphs		
Recent Doctoral theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
2018.3	Design of Efficient Online Algorithms for Server Problems on Networks		
Laboratory mail address	Akira Matsubayashi <mbayashi *at* t.kanazawa-u.ac.jp>		