

## Contents

- Laboratory Special Issue -

|   |    |
|---|----|
| Introduction of the Institute of Life Environment for Future in Cold Region<br>..... Satoshi Takezawa, Akira Fukushima, Masahiro Uozumi<br>Takahiro Chiba and Masahiro Yagami   | 1  |
| Research Concept of Members in IF Laboratory<br>..... Yuko Hayashi, Hisashi Matsuda and Yohichiro Kojima  | 9  |
| Descriptive research of the muscle mass and muscle thickness<br>of healthy elderly living in cold region<br>..... Kumiko Miyata, Yuko Hayashi and Kaoru Fukura  | 15 |
| Factors Affecting Attrition in a Physical-Health Survey<br>for Community-Dwelling Older Adults<br>..... Junko Ouchi, Yuko Hayashi, Michiko Matsubara<br>Kumiko Miyata, Michiyo Yamamoto, Shiho Hosoya<br>Yuuki Otsuyama, Hiromi Sasaki and Mika Ito   | 23 |
| Evaluation of snow sliding characteristics on finishing materials<br>for buildings based on shaking table test and response analysis<br>..... Takahiro Chiba and Arihito Kawai  | 31 |
| Development of health support data management system<br>for elderly people<br>..... Hirofumi Sanada, Naofumi Wada, Jyunko Ouchi<br>Michiyo Yamamoto, Michiko Matsubara and Yuko Hayashi   | 37 |
| Influence of Seasonal Change on Physical and Cognitive Functions of Older Adults<br>in Cold Snowy Districts<br>..... Yuko Hayashi, Michiyo Yamamoto, Kumiko Miyata, Youitirou Sato<br>Junko Ouchi, Kaoru Fukura, Michiko Matsubara, Hiromi Sasaki<br>Nozomi Takayama, Mika Itou, Shiho Hosoya<br>Naofumi Wada and Hirofumi Sanada | 43 |
| Study of Design for Wheelchair Applied Honeycomb Taper Shaped Origami Structure<br>..... Satoshi Takezawa   | 51 |

- Papers -

|  |    |
|--|----|
| Stabilization of a quadrotor UAV using Simple Adaptive Control<br>..... Akihiko Takashima and Takayuki Iino                                    | 59 |
| An Epidemiological Study of Infectious Gastroenteritis<br>in Pediatric Wards in Japan<br>..... Shiho Akihara, Noriko Ohno and Hiroshi Ushijima | 67 |
| Recognition of Tuberculosis Inpatients towards Treatment and DOTS<br>..... Shiho Akihara and Kazumi Fujimura                                   | 75 |

|   |   |     |
|---|---|-----|
| Development of the Anti-Skid Tool for a Cane to Assist Walking in Winter<br>.....   | Takeshi Tsuruga, Hiroyuki Matsubara, Tomohiro Nomura<br>Toshiki Kobayashi and Toshiya Nosaka                            | 83  |
| Clinical Verification of Semi-Quantitative Procalcitonin Test<br>in Digestive Diseases<br>.....   | Tomokazu Indo, Kazuyuki Kimura, Toshitsugu Sugawara<br>Toru Yokoyama, Takeshi Aikawa and Satoshi Kuroda                 | 91  |
| Resistance Spot Welding of the galvanized steel sheet<br>and the aluminum alloy for automobile<br>.....   | Koichi Hayashi, Katsumi Miyama, Kentaro Maeda<br>Yoshinobu Tanuma, Toshiaki Horiuchi<br>Shigeru Saito and Kanou Yoshida | 99  |
| - Educational Practice Reports -  |   |     |
| TPpractice and Evaluation of Active Learning in the Cody Coursework<br>.....  | Satoshi Takezawa, Akihiko Takashima<br>Masao Nagamatsu and Kaeko Nakamura   | 107 |
| Practices of Electric and Electronic Engineering Exercises<br>in the Department of Prosthetics and Orthotics<br>.....                                   | Takeshi Tsuruga, Hiroyuki Matsubara and Tomohiro Nomura   | 111 |
| Contents and Methods of Training and Practices<br>of Introduction to Computer Graphics in the Department of Media Arts and Design<br>.....              | Takayuki Komatsu  | 115 |
| Contents and Methods of Training and Practices<br>of Music Information Processing in the Department of Media Arts and Design<br>.....                   | Takayuki Komatsu  | 119 |
| Educational Methods of Training and Practices<br>for Creative-Oriented Students of Seminar Class in the Department<br>of Media Arts and Design<br>..... | Takayuki Komatsu  | 123 |
| The Significance of People Outside the Town and College Student Participation in<br>the Town Reactivation Event "Cheers at Shindori Market!"<br>.....   | Junko Michio  | 127 |
| An Overseas Program for Medical Engineering Students: Reconsidering the<br>Program in the U.S.<br>.....   | Toshiharu Akiyama   | 131 |
| Responding to School Crisis Management against Natural Disasters<br>.....   | Kazuhiro Aoyama   | 135 |