

experience sampling methodology, and affects were measured using the Multiple Mood Scale-State and Trait.

The results indicated that the quantity and quality of interpersonal interactions did not change over time, but the relationship between the quantity and quality of interpersonal interactions and affects were different depending on the time of year. It is possible that freshmen's interactions with their families in April and June influenced their adaptation to daily life. Also, the quality of interpersonal interactions is more related with affects in October than in April. This result means that more open and positive interpersonal interactions with close friends inhibit negative affects.

## **ID Lookup System: An Elemental Technique for Maintaining Electronic Patient Records**

Masaaki TANAKA and Yukiko UEMATSU

A system was developed which enables physicians to share patients' clinical information stored at different hospitals. The system, called the ID Lookup System, consists of an ID Lookup Server and an ID Lookup Interface Server. The former maintains a record of all hospitals visited by the patient concerned and the latter both provides and gives access to clinical information which is encoded as a MML format. This system is an indispensable elemental technique for maintenance and dispensing of electronic patient records.

## **A Numerical Solution of the Three-Dimensional Laplace Equation by the Boundary Element Method**

Kohji ISHII and Hiromichi YAMAMOTO

In the present paper, an attempt was made to find a numerical solution of the Laplace equation by boundary element methods in 3-dimensional space  $R^3$ . First, we considered the exact and numerical solutions of the Dirichlet problem for the concentric ring domain in  $R^3$ . In the boundary element method, the boundary of the sphere is approximated by the plane triangles. We compared numerical solutions with the exact solution and got the best approximation of the sphere denoted by  $G_n^*$ .

Next, we considered the mixed boundary problem of the Laplace equation for the unbounded domain where its boundary consists of the spheres. The exact solution of this problem is unknown. We obtained numerical solutions for the best approximation  $G_n^*$ , and give the graphic curve of these solutions. Moreover, we give the numerical solution of the 2-module for the curve family in  $R^3$ .