

List of Figures

1-1	Conceptual Framework of the Proposed System	4
2-1	Gesture Classification: A Taxonomy	14
2-2	Generic View of Dance Gesture Recognition System	18
3-1	Asamyukta Hastas	33
3-2	Framework for Dataset Creation	35
3-3	Example of Hasta Images with Different Angle of View of the Camera	35
3-4	Preprocessing Steps of Hand Gesture	36
3-5	Images with Gaussian Noise	38
3-6	Images with Salt & Pepper Noise	39
3-7	Images with Speckle Noise	39
3-8	Blurred Images with Different Theta Values	40
3-9	Finger Identification	40
4-1	Example of Hu's Moment Invariants	51
4-2	Example of Zernke Moments of Order 0 to 10	52
4-3	Example of Legendre Moments of Order 0 to 10	53
4-4	Example of Geometric Feature Set	55

List of Figures

4-5	Representation of Bayesian Network	57
4-6	Comparative Performance on SSHG Dataset using FS1	60
4-7	Comparative Performance of the Four Feature Sets on SSHG Dataset Without Noise	63
4-8	Comparative Performance of the Four Feature Sets on SSHG With Noise	65
5-1	Workflow Diagram of Two-Level Classification Method	67
5-2	Outputs of Different Steps of MAT Extraction of an Hasta Image	69
5-3	Creation of Groups on MAT Image Dataset	70
5-4	Sample of MAT Extracted Image Dataset	72
6-1	Example of Euler Number Features	76
6-2	Angle Between Fingers and <i>Finger_Tips</i> Distance	77
6-3	Steps for Finding Number of Edges from Cycle	78
6-4	Example of Number of Edges from Border	80
6-5	Example of Edges from Border Directly Merge to a Cycle	81
6-6	Example of Edge Length	82
6-7	Example of Branch Point	82
6-8	Schematic Diagram for Hierarchical Classification Approach	83
6-9	Conceptual Diagram of Hierarchical Classification Algorithm	85
6-10	Output Steps of Conversion from Gray to MAT Image for Wide-Open Hasta Group	89
6-11	Output Steps of Conversion from Gray to MAT Image for Slight-Open Hasta Group	91
6-12	Example of Ban Hasta Recognition with Similarity Score	93

List of Figures

6-13 ROC graph of Ban Hasta Recognition with Similarity Score	93
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List of Tables

2.1	Example of Vision-Based Hand Gestures for Controlling Electronic Devices	11
2.2	Basic Types of Gestures	13
2.3	Effron's Classification	15
2.4	Glove-based Gesture Recognition	24
2.5	Vision-based Gesture Recognition	25
3.1	List of Related Hand Gesture Dataset	30
3.2	Numeric Label of Sattriya Dance Asamyukta Hastas	34
3.3	Dataset Description	41
4.1	Description of Shape Representation using Moment Features	49
4.2	Dataset Description	59
4.3	Recognition Results on FS1	60
4.4	Recognition Accuracy of Four Feature Set with State of Art Classifier	61
4.5	Recognition Accuracy on SSHG Dataset on Noise	64
5.1	Statistics for First Level Classification	73
5.2	Confusion Matrix for First Level Classification With SVM	73
5.3	Statistics for Second Level Classification	73

List of Tables

6.1	Features Values of Hand Gestures Having Single-Hole Group	86
6.2	Feature Value of Hand Gestures Having Close-Finger Group	89

List of Algorithms

1	ConvertRGBtoMAT	68
2	Grouping	69
3	Number of Edges from Cycle	77
4	Number of Edges from Border	78
5	Check_border	79
6	Reverse_Matrix	79
7	Edges from Border Merge to a Cycle	80
8	Edge Length	81
9	Branch Point Location	82
10	Hierarchical Classification for Asamyukta Hastas (Single-Hand Gestures) Recognition	84
11	Single Hole Group Recognition	87
12	Close-Finger Group Recognition	88
13	Wide-Open Group Recognition	90
14	Slight-Open Group Recognition	90

Glossary of Terms

HCI	Human Computer Interaction
ASL	American Sign Language
ArSL	Arabic Sign Language
JSL	Japanese Sign Language
KSL	Korean Sign Language
BSL	Brazilian Sign Language
Auslan	Australian Sign Language
ANN	Artificial Neural Network
SVM	Support Vector Machine
DT	Decision Tree
KNN	K-Nearest Neighbor Algorithm
STA	Skeletal Tracking Algorithm
SAX	Symbolic Aggregation Approximation
EM	Expectation Maximization
BN	Bayesian Network
HMM	Hidden Markov Model
FSM	Finite State Machine
FL	Fuzzy Logic
NN	Neural Network Language
EC	Evolutional Computing
ML	Machine Learning
PR	Probabilistic Reasoning
GA	Genetic Algorithm
DPA	Dynamic Programming Alignment
BPNN	Back Propagation Neural Network
NUS	National University of Singapore
HGR	Hand Gesture Recognition Language
GMM	Gaussian Mixture Model
FS	Feature Set
DAG	Directed Acyclic Graph

RBF	Radial Basis Kernel
MAT	Medial Axis Transformation
SSIM	Structural Similarity Index
OS	Operating System
EN	Euler Number
EL	Edge Length
TD	Finger_tips Distance
AF	Angle Between Fingers
NEC	Number of Edge from Cycle
NEB	Number of Edge from Border
EBMC	Edge from Border Merge to a Cycle
BP	Branch Point

Symbols and Notations

θ	Inclination
ϕ	Azimuth
M	Hidden Markov Model
M_1, M_2, \dots	Transition Probabilities
O	Observations
π	Initial probabilities
P_n	Dancer ID ($n = 1, 2 \dots$)
N	Name of Hastas
T	Time of image capture day or night
R	Repetition ranging from 1, 2, ...
Jpg	Joint Photographic Group.
μ_{pq}	Moment function with order p+q
$f(x, y)$	Intensity of the pixel at location (x,y)
$M \times M$	Image with M \times M dimension
ϕ_i	Hu's Moment invariant
$V_{pq}(\rho, \theta)$	Zernike Polynomial with polar co-ordinates ρ, θ and order $p + q$
$R_{pq}(\rho)$	Radial Polynomial
$L_{pq}(\rho)$	Legendre moment