Chapter 1

Support Vector Machines

The support vector machine (SVM) is used widely in the area of pattern recognition. SVMs are ... (but beware, converting the initial letter to upper case for a small caps acronym is sometimes considered poor style).

Short version: SVM. Long version: support vector machine. Full version: support vector machine (SVM). Description: Statistical pattern recognition technique [1].

This is the entry in uppercase: SVM.
Chapter 2

Kernel Support Vector Machines

The kernel support vector machine (K SVM) is an SVM that uses the so called “kernel trick”. This is the entry’s description without a link: Statistical pattern recognition technique using the “kernel trick”.

Possessive: kernel support vector machine’s (K SVM). Make the glossary entry number bold for this one support vector machine (SVM).
Bibliography
Acronyms

kernel support vector machine (K SVM)
Statistical pattern recognition technique using the “kernel trick”. 3, see also SVM

support vector machine (SVM)
Statistical pattern recognition technique [1]. 2, 3