

# Parametric Diagram

# Introduction

- ❖ The SysML Parametric Diagram enables us to model relationships between parameters of different blocks.

# The Constrained Block

- ❖ Defined separately from any context, the constrained block describes constraints on the structure of our system referring to its involved parameters.
- ❖ The constrained block is depicted using the “<<constrainedBlock>>” stereotype (instead of “<<block>>”).
- ❖ The constraints it includes are UML constraints formulated we can specify in any language and/or form we want.

# The Constrained Block

- ❖ The constrained block describes the parameters involved in its constraints listing them as its attributes.
- ❖ A constraint block includes two compartments only: '*constraints*' and '*parameters*'. The first lists the constraints within curled brackets and the second contains the definition of the parameters the constraints refer to.

# The Constrained Block

<p>&lt;&lt;constraint&gt;&gt;</p> <p>Apartments Area</p>
<p><i>constraints</i></p> <p>{n*apartment_area = floor_area}</p>
<p><i>parameters</i></p> <p>n : number of apartments in each floor apartment_area : area of each apartment floor_area : area of the floor</p>