A descriptive Chord input for Carnatic Music

Chords are represented in the Western Music in one of three ways, as far as I know, viz. i) the Chord-Name system and ii) the Roman Numeral system iii) the figured bass system.

I consider that the above methods do not give a complete picture of a chord. Let us consider, the four-part root position C chord. It is represented as C or I or 5-3 chord.

These representations are ambiguous to mean one of the following:

 i) C+E+G+C
ii) C+G+C+E
iii) C+C+E+G. And they may even mean:
iv) C+E+G+G
v) C+G+E+G.

In particular cases, when the 3rd is doubled, there can be still two more designs.

In the western notation system, the above methods may suffice, because, the grand staff comes to one's aid. However, since, Carnatic Music has only a melody line, it is necessary that the chord has the full information in itself.

Thus, I would prefer the above chord in its various designs to be represented as follows:

i) C = C+E+G+C » $1\overset{\mathbf{C}}{3}51$

ii) C = C+G+C+E » $1\overset{\mathbf{C}}{5}13$

iii) C = C+C+E+G » $11\overset{\mathbf{C}}{3}5$

iv) C = C+E+G+G » $1\overset{\mathbf{C}}{3}55$

v) C = C+G+E+G » $1\overset{\mathbf{C}}{5}35$

In the above representations, the numbers denote ***the degrees of the chord***, but not the degrees of the scale.

Seventh, Diminished, Augmented and Suspended Chords:

Let us consider the following chords

C7 chord: C+G+E+Bb » $1\overset{\mathbf{C7}}{5}37$

CΔ7 chord: C+C+E+B » $1\overset{\mathbf{C^{\Delta}7}}{1}37$

Cmaj7/E chord: E+C+G+B » $3\overset{\mathbf{C^{\Delta}7/E}}{1}57$

Bdim7 chord: B+D+F+Ab » $1\overset{\mathbf{B^{o}7}}{3}57$

Gsus4 chord: G+G+C+D » $1\overset{\mathbf{G^{\flat}4}}{1}45$

I assume that the examples suffice. The following are drawn from the examples above.

- Since the melody line will indicate the pitch of the Soprano, it is very easy to calculate the other pitches that the numbers represent.

- Since we know what the chord is by the Chord-Name above, the numbers below need not be qualified.
  However, there can be two occasions where we need to qualify the numbers.
  i) When there are unison voices, there should be a way to show it.
  Let us consider the following:

  G= 'G'+D+B   » $1'5\overset{G}{3}$

  ii) Secondly, when the bass is more than an octave apart, there should be a way to show it.
  Let us consider the following:

  C = C+E+C+G   » $13 1\overset{C}{5}$

The arpeggio style of chords:

Qualifying the numbers, say as in the Carnatic system, is a must if the chord is intended as an arpeggio.

This, particularly, would be helpful to input Shruthi. For example, a four stringed Tampura is tuned with C+C+C+G, where the underlined C and G are in the low octave and lineless Cs are in the middle octave and these notes are plucked one after the other.
Let us consider the following:

Arpeggio C = C-C-C-G   » $\{1 1 1\overset{C}{5}\}$

Thus, the provisions for the block chord and the arpeggio are helpful.

With regards,
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