if at least two of the $2n-1$ vectors are from I, we have always $a = b = 0$. In any case, $a = b$. Therefore V is an n-Lie algebra. Moreover, it is clear according to the definition that I is an ideal and V_1 a subalgebra of V. □

Ramark 2.2: A natural question is whether there exists an Inder(V_1)-module I with the property (2.4). The answer to this question is 'yes'. Indeed, let I be a space with $\dim(I) = \dim(V_1) = m$. Let $\{e_i\}_{i\in \underline{m}}$ be a basis of V_1 and $\{f_i\}_{i\in \underline{m}}$ of I. For $v_i \in V_1$, $i \in \underline{n-1}$, let $\rho(\mathrm{ad}(v_1, \cdots, v_{n-1}))$ be the endomorphism of I, for which the matrix relative to the basis $\{f_i\}_{i\in \underline{m}}$ equals the matrix for $\mathrm{ad}(v_1, \cdots, v_{n-1})$ relative to the basis $\{e_i\}_{i\in \underline{m}}$. Obviously $\rho(\mathrm{ad}(v_1, \cdots, v_{n-1}))$ is well defined and it gives rise to a representation of $Inder(V_1)$ in I. Moreover we have

$$\begin{aligned}
&\rho(\mathrm{ad}(u_1, \cdots, u_{n-2}, [v_1, \cdots, v_n])) \\
&= \sum_{i=1}^{n} (-1)^{n-i} \rho(\mathrm{ad}(v_1, \cdots, \widehat{v_i}, \cdots, v_n))\rho(\mathrm{ad}(u_1, \cdots, u_{n-2}, v_i)).
\end{aligned}$$